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The data contained in this brochure is intended solely for the description of product characteristics. Due to the ongoing nature of product research and innovation, the information herein has not been validated for adaptability to specific industry conditions. Should you have any questions regarding the content, please feel free to contact us for consultation.



SOLINER

THREADED CARTRIDGE VALVE

Ver. SO2025-11



SOLINER

Threaded Cartridge Valve

Selection Guide

Precision-Stability-Durability



www.solinerglobal.com



About Soliner

Founded in 2003, Nanjing Soliner Hydraulic Technology Co., Ltd is a leading manufacturer of hydraulic filters, sensors, wind power lubrication systems and hydraulic components. The company's products are widely applied in construction machinery, metallurgy, aerospace, wind power, machine tools, petroleum, chemical, shipbuilding and other industries. As a customer-oriented company, we strive to provide our customers with high-quality products and services. With complete research and development capabilities and advanced production equipments, we are committed to innovation and excellence.

Why Choose Us?

21

Invention Patents

53

Utility Model Patents

Advanced Machining Center



Soliner, as a manufacturing enterprise, has a total of 35,000 square meters of production workshops, including machining workshops, temperature-controlled solenoid valve workshops, temperature-controlled honing workshops, sheet metal workshops, filter workshops, and hydraulic assembly workshops. The company possesses a variety of professional intelligent production equipment, such as Mazak flexible production lines, Japanese intelligent processing unit islands, German-made original forming grinding machines, German-made original double-end face grinding machines, German Roboski filter production lines, intelligent storage equipment, and so on.



Precise Technical Testing Center

Soliner has a total of 3,200 square meters of various types of laboratories, including comprehensive performance of wind lubrication systems, high and low temperature testing, hydraulic filtration, heat transfer performance of coolers, and comprehensive performance of structures, among other professional laboratories. At the same time, it also has a large number of outstanding technical personnel and a comprehensive product development system.



Excellent Technical Talents

Soliner has a large number of outstanding technical talents, a complete product research and development system, and has established stable cooperative relationships with major universities for a long time. It strengthens exchanges and cooperation in technology research and development, talent cultivation, administrative management, and other aspects to promote common development.

Production Equipment

Modern standard workshop, imported mechanical equipments
35,000 m² of manufacturing workshops



Yamazaki Mazak machining center
(flexible production line)



Germany Robosky
filter element production line



MAZAK
Turn-Mill Machine



Tsugami
CNC LATHE



Imported gear
hobbing machine



Tsugami
Compound Grinder



SHUNEN
Honing Machine



Daito Eiko
Centerless Grinder



Auto-Assembly Line



Takahasi
Hard Turning Machine



Peter Wolters
Power Grinder



Tsugami
Cylindrical Grinder

Testing Center

Multiple imported testing equipments
3,200m² comprehensive laboratories



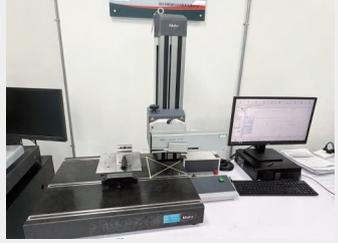
Mahr Cylindricity Tester



ZEISS CMM



Solenoid valve Test bench



Germany Mahr contourgraph



GMN Multi-pass Test Bench



Pulse Test Stand



Multi-Pass Test Bench



Filtration Technology Testing Center



Hydraulic Resistance Test Desk



Structural Integrity Test Bench

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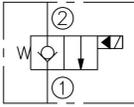
06 Flow Control Valve 422-426

07 Logic Valve 427-443

08 Valve Manifold 444-570

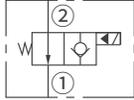
On/off Solenoid Valve—Selection Guide

2-position NC
Pilot-operated Seat
type Solenoid
Directional Valve



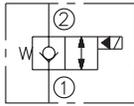
Model	Flow (Rate)	Pressure	Page
SV08-2-20	30.2 L/min	207 bar	023

2/2 NO
Pilot-operated
Seat type Solenoid
Directional Valve



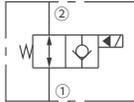
Model	Flow (Rate)	Pressure	Page
SV08-2-21	37.9 L/min	207 bar	027

2-way NC
Seat type Solenoid
Directional Valve



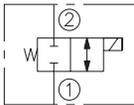
Model	Flow (Rate)	Pressure	Page
SV08-2-22	30.2 L/min	207 bar	031

2/2 NO
Pilot-operated Seat
type Solenoid
Directional Valve



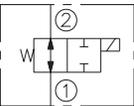
Model	Flow (Rate)	Pressure	Page
SV08-2-23	30.2 L/min	207 bar	035

2-way NC
Direct-acting spool
type Solenoid
Directional Valve



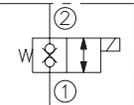
Model	Flow (Rate)	Pressure	Page
SV08-2-24	17 L/min	207 bar	039

2-way NO
Direct-acting spool
type Solenoid
Directional Valve



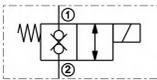
Model	Flow (Rate)	Pressure	Page
SV08-2-25	9.5 L/min	207 bar	043

2/2 NC
Solenoid Directional
Valve



Model	Flow (Rate)	Pressure	Page
SV08-2-26	1.89 L/min	207 bar	047

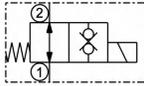
2/2 NC
Solenoid directional
poppet valve



Model	Flow (Rate)	Pressure	Page
SV08-2-28	15 L/min	250 bar	051

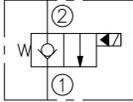
On/off Solenoid Valve—Selection Guide

2/2 NO
Solenoid directional
poppet valve



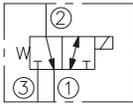
Model	Flow (Rate)	Pressure	Page
SV08-2-29	15 L/min	250 bar	055

2/2 NC
Direct-acting needle
type Solenoid
Directional Valve



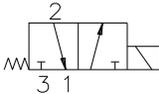
Model	Flow (Rate)	Pressure	Page
SV08-2-B22	30.2 L/min	210 bar	059

3-way
Solenoid directional
poppet valve Solenoid
Directional Valve



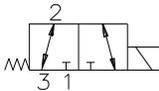
Model	Flow (Rate)	Pressure	Page
SV08-3-30	15.1 L/min	207 bar	063

3-way
Cartridge type
Solenoid
Directional Valve



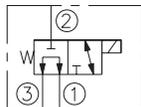
Model	Flow (Rate)	Pressure	Page
SDV10-3-21	60 L/min	350 bar	067

3-way Cartridge
type Solenoid
Directional Valve



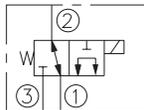
Model	Flow (Rate)	Pressure	Page
SDV08-3-26	30 L/min	350 bar	071

3-way Cartridge
type Solenoid
Directional Valve



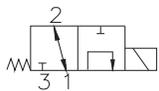
Model	Flow (Rate)	Pressure	Page
SDV08-3-30	30 L/min	350 bar	075

3-way Direct-acting
poppet type
Solenoid
Directional Valve



Model	Flow (Rate)	Pressure	Page
SV08-3-31	11.4 L/min	207 bar	079

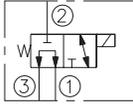
3-way
Cartridge type
Solenoid
Directional Valve



Model	Flow (Rate)	Pressure	Page
SDV08-3-31	30 L/min	350 bar	083

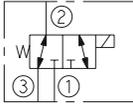
On/off Solenoid Valve—Selection Guide

3-way Direct-acting poppet type Solenoid Directional Valve



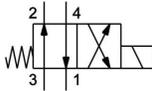
Model	Flow (Rate)	Pressure	Page
SV08-3-33	11.4 L/min	207 bar	087

2/3 Direct-acting poppet type Solenoid Directional Valve



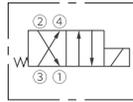
Model	Flow (Rate)	Pressure	Page
SV08-3-35	11.4 L/min	207 bar	091

2/4 Direct-acting poppet type Solenoid Directional Valve with manual control



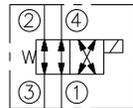
Model	Flow (Rate)	Pressure	Page
SDV08-4-40	11.4 L/min	350 bar	095

2/4 Direct-acting poppet type Solenoid Directional Valve



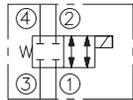
Model	Flow (Rate)	Pressure	Page
SV08-4-40R	11.4 L/min	210 bar	099

2/4 Direct-acting poppet type Solenoid Directional Valve



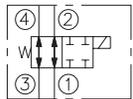
Model	Flow (Rate)	Pressure	Page
SV08-4-40	11.4 L/min	207 bar	103

2/4 Direct-acting poppet type Solenoid Directional Valve



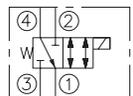
Model	Flow (Rate)	Pressure	Page
SV08-4-41	13.2 L/min	207 bar	107

2/4 Direct-acting poppet type Solenoid Directional Valve



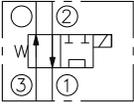
Model	Flow (Rate)	Pressure	Page
SV08-4-42	11.4 L/min	207 bar	111

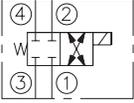
2/4 Direct-acting poppet type Solenoid Directional Valve

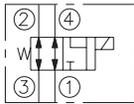


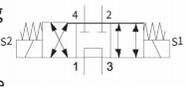
Model	Flow (Rate)	Pressure	Page
SV08-4-43	11.4 L/min	207 bar	115

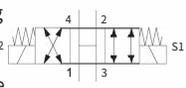
On/off Solenoid Valve—Selection Guide

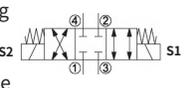
2/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-44	11.4 L/min	207 bar	119

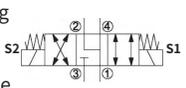
2/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-45	11.4 L/min	207 bar	123

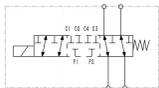
2/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-46	11.4 L/min	207 bar	127

3/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-47A	11.4 L/min	210 bar	131

3/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-47B	11.4 L/min	210 bar	135

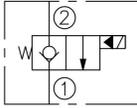
3/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-47C	11.4 L/min	210 bar	139

3/4 Direct-acting poppet type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-4-47D	11.4 L/min	207 bar	143

2/6 PIB-plate type Solenoid Directional Valve		Model	Flow (Rate)	Pressure	Page
		SV08-6-60-PIB	25 L/min	250 bar	147

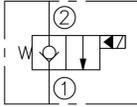
On/off Solenoid Valve—Selection Guide

2/2 NC
Direct-acting
needle Solenoid
Directional Valve



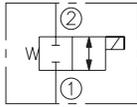
Model	Flow (Rate)	Pressure	Page
SV08-2-B20	30.2 L/min	210 bar	151

2/2 NC
Direct-acting
needle Solenoid
Directional Valve



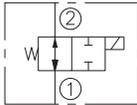
Model	Flow (Rate)	Pressure	Page
SV08-2-B20M	26.2 L/min	240 bar	155

2-way NC
Direct-acting spool
type Solenoid
Directional Valve



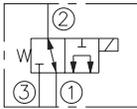
Model	Flow (Rate)	Pressure	Page
SV10-2-24	22 L/min	210 bar	159

2/2 Direct-acting
spool type Solenoid
Directional Valve



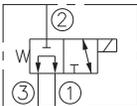
Model	Flow (Rate)	Pressure	Page
SV10-2-25	22.7 L/min	207 bar	163

3-way Direct-acting
poppet type
Solenoid
Directional Valve



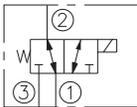
Model	Flow (Rate)	Pressure	Page
SV10-3-31	22 L/min	210 bar	167

2/3 Direct-acting
poppet type
Solenoid
Directional Valve



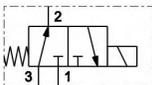
Model	Flow (Rate)	Pressure	Page
SV10-3-33	18.9 L/min	210 bar	171

2/3 Direct-acting
poppet type
Solenoid
Directional Valve



Model	Flow (Rate)	Pressure	Page
SV10-3-34	22.7 L/min	210 bar	175

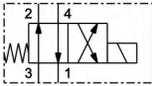
3-way
Direct-acting
poppet type
Solenoid
Directional Valve



Model	Flow (Rate)	Pressure	Page
SV10-3-35	22 L/min	210 bar	179

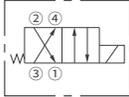
On/off Solenoid Valve—Selection Guide

2/4 Direct-acting poppet type Solenoid Directional Valve



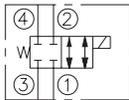
Model	Flow (Rate)	Pressure	Page
SV10-4-40	22.7 L/min	210 bar	183

3/4 Direct-acting poppet type Solenoid Directional Valve



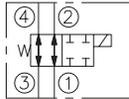
Model	Flow (Rate)	Pressure	Page
SV10-4-40R	22.7 L/min	210 bar	187

2/4 Direct-acting poppet type Solenoid Directional Valve



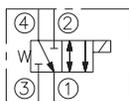
Model	Flow (Rate)	Pressure	Page
SV10-4-41	22 L/min	210 bar	191

2/4 Direct-acting poppet type Solenoid Directional Valve



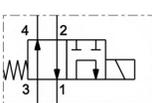
Model	Flow (Rate)	Pressure	Page
SV10-4-42	22 L/min	210 bar	195

2/4 Direct-acting poppet type Solenoid Directional Valve



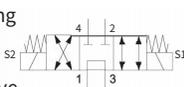
Model	Flow (Rate)	Pressure	Page
SV10-4-43	22 L/min	210 bar	199

2/4 Direct-acting poppet type Solenoid Directional Valve



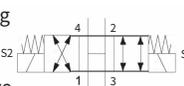
Model	Flow (Rate)	Pressure	Page
SV10-4-44	22 L/min	210 bar	203

3/4 Direct-acting poppet type Solenoid Directional Valve



Model	Flow (Rate)	Pressure	Page
SV10-4-47A	19 L/min	240 bar	207

3/4 Direct-acting poppet type Solenoid Directional Valve



Model	Flow (Rate)	Pressure	Page
SV10-4-47B	22.7 L/min	240 bar	211

On/off Solenoid Valve—Selection Guide

3/4 Direct-acting poppet type Solenoid Directional Valve

Model	Flow (Rate)	Pressure	Page
SV10-4-47C	23 L/min	207 bar	215

3/4 Direct-acting poppet type Solenoid Directional Valve

Model	Flow (Rate)	Pressure	Page
SV10-4-47D	23 L/min	207 bar	219

2/2 NC Seat type Solenoid Directional Valve

Model	Flow (Rate)	Pressure	Page
SV12-2-20	113.6 L/min	240 bar	223

2-way NO Seat type Solenoid Directional Valve

Model	Flow (Rate)	Pressure	Page
SV12-2-21	113.6 L/min	240 bar	227

2/2 NC Seat type Solenoid Directional Valve

Model	Flow (Rate)	Pressure	Page
SV12-2-22	113.6 L/min	240 bar	231

2-way NO Seat type Solenoid Directional Valve

Model	Flow (Rate)	Pressure	Page
SV12-2-23	113.6 L/min	240 bar	235

3/4 plate-type Solenoid Directional Valve

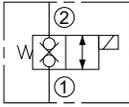
Model	Flow (Rate)	Pressure	Page
SVD04-47D-S	30 L/min	320 bar	239

Direct-acting control Cartridge type Solenoid on/off valve

Model	Flow (Rate)	Pressure	Size	Page
XLSDCV-05	15 L/min	60 bar	05	243

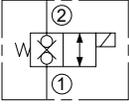
On/off Solenoid Valve—Selection Guide

2/2 NC
Pilot-operated
Seat type
Solenoid Valve



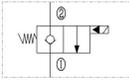
Model	Flow (Rate)	Pressure	Page
XLSV08-28MR.00	19 L/min	250 bar	247

2/2 NC
Pilot-operated
Seat type
Solenoid Valve



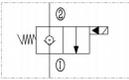
Model	Flow (Rate)	Pressure	Page
XLSV08-28MR.M18.00	15 L/min	250 bar	251

2-way NC
Pilot-operated
Seat type
Solenoid Valve



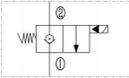
Model	Flow (Rate)	Pressure	Page
XLSV08-C20.00	38 L/min	350 bar	255

2-way NC
Pilot-operated
Seat type
Solenoid Valve



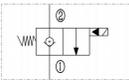
Model	Flow (Rate)	Pressure	Page
XLSV08-C20MR.00	38 L/min	350 bar	259

2-way NO
Seat type
Solenoid Valve



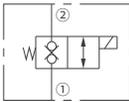
Model	Flow (Rate)	Pressure	Page
XLSV08-C20MR.M18.00	18 L/min	207 bar	263

2/2 NC
Pilot-operated
Seat type
Solenoid Valve



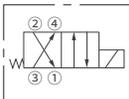
Model	Flow (Rate)	Pressure	Page
XLSV06020-20.00	40 L/min	207 bar	267

2/2 NC
Direct-acting
Seat valve
Solenoid Valve



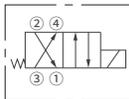
Model	Flow (Rate)	Pressure	Page
XLSV06020-28.00	19 L/min	250 bar	271

2/4
High-pressure
spool valve
Solenoid Valve



Model	Flow (Rate)	Pressure	Page
XLSVM081-40.00	25 L/min	350 bar	275

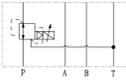
2/4
High-pressure
spool valve
Solenoid Valve



Model	Flow (Rate)	Pressure	Page
XLWK10Y-01-C	32 L/min	350 bar	279

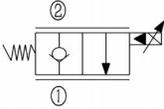
Electronic Proportional Valves—Selection Guide

Stackable electronic proportional relief valve



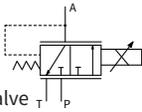
Model	Flow (Rate)	Pressure	Page
RV08-36-S	40 L/min	315 bar	284

Proportional solenoid actuation



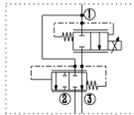
Model	Flow (Rate)	Pressure	Page
SP08-2-20	22 L/min	250 bar	288

Direct-acting control electronic proportional pressure reducing valve



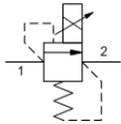
Model	Flow (Rate)	Pressure	Page
XLPPRV-05	10 L/min	60 bar	294

Solenoid actuation proportional Flow - Control Valve



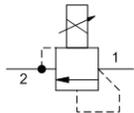
Model	Flow (Rate)	Pressure	Page
XLPV70-30A	30 L/min	240 bar	300

Solenoid actuation inverse proportional relief valve



Model	Flow (Rate)	Pressure	Page
XLRBAN-XWN	2 L/min	350 bar	304

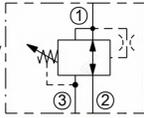
Solenoid actuation proportional relief valve



Model	Flow (Rate)	Pressure	Page
XLRBAP-XWN	2 L/min	350 bar	308

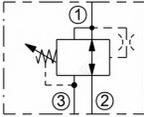
Pressure Control Valve—Selection Guide

Direct-acting spool pressure reducing valve



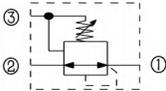
Model	Flow (Rate)	Pressure	Page
SPR58-38-0	18.9 L/min	345 bar	313

Direct-acting spool pressure reducing valve



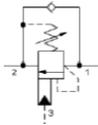
Model	Flow (Rate)	Pressure	Page
SPR58-38-K	18.9 L/min	345 bar	317

Direct-acting spool pressure reducing valve



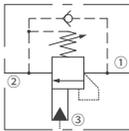
Model	Flow (Rate)	Pressure	Page
XLDP08-11A-30-D-L	40 L/min	350 bar	321

3-way Threaded cartridge shuttle valve



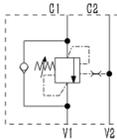
Model	Flow (Rate)	Pressure	Page
XLCBBA-LHN	15 L/min	280 bar	325

3-way Threaded cartridge shuttle valve



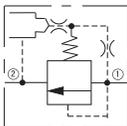
Model	Flow (Rate)	Pressure	Page
XLCCBBG-LJN	60 L/min	350 bar	329

Plate-type counterbalance valve



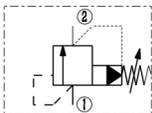
Model	Flow (Rate)	Pressure	Page
XLVB0-SE-30.00-A	40 L/min	350 bar	333

Main-stage relief valve with T-8A control cavity



Model	Flow (Rate)	Pressure	Page
XLRPEC-8WN	160 L/min	350 bar	337

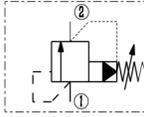
Two-stage pilot spool relief valve



Model	Flow (Rate)	Pressure	Page
XLRV10-26-A-N-15	110 L/min	350 bar	341

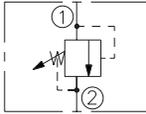
Pressure Control Valve—Selection Guide

Two-stage
pilot spool
relief valve



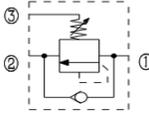
Model	Flow (Rate)	Pressure	Page
XLRV10-26-A-N-30	110 L/min	350 bar	345

Direct-acting
Seat type
relief valve



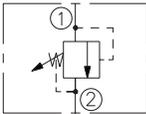
Model	Flow (Rate)	Pressure	Page
XLRVR08-M20.00	20 L/min	250 bar	349

Direct-acting
ball
sequence valve



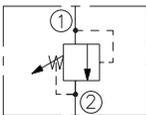
Model	Flow (Rate)	Pressure	Page
XLSC-11A	20 L/min	250 bar	353

Direct-acting
poppet-type
relief valve



Model	Flow (Rate)	Pressure	Page
RVS08-20	30 L/min	350 bar	357

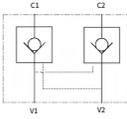
Direct-acting
poppet-type
relief valve



Model	Flow (Rate)	Pressure	Page
RVS10-20	50 L/min	350 bar	361

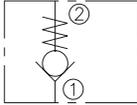
Directional Valve—Selection Guide

Stackable hydraulic check valve



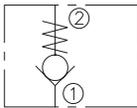
Model	Flow (Rate)	Pressure	Page
2RJV1-08MC3.2/1-N	10 L/min	200 bar	366

Threaded cartridge hydraulic check valve



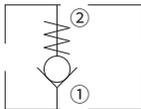
Model	Flow (Rate)	Pressure	Page
CF2-08	38 L/min	350 bar	370

Threaded cartridge hydraulic check valve



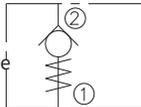
Model	Flow (Rate)	Pressure	Page
CV08-20	30 L/min	240 bar	374

Threaded cartridge hydraulic check valve



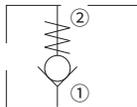
Model	Flow (Rate)	Pressure	Page
CV10-20	120 L/min	210 bar	378

Threaded cartridge hydraulic check valve



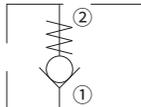
Model	Flow (Rate)	Pressure	Page
CV12-21	113.6 L/min	240 bar	382

Embedded poppet hydraulic check valve



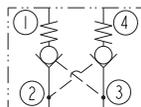
Model	Flow (Rate)	Pressure	Page
CV-20-002-N-G1/4	22.7 L/min	350 bar	386

Threaded cartridge hydraulic check valve



Model	Flow (Rate)	Pressure	Page
CV42-M20	378.5 L/min	240 bar	390

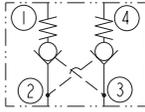
Dual hydraulic check valve



Model	Flow (Rate)	Pressure	Page
DC08-4-40-N-25	19 L/min	240 bar	394

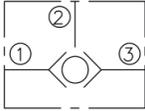
Directional Valve—Selection Guide

Dualhydraulic
check valve



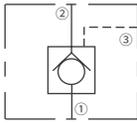
Model	Flow (Rate)	Pressure	Page
DC10-4-40-N-25	19 L/min	240 bar	398

Threaded cartridge
Hydraulic
shuttle valve



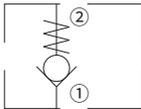
Model	Flow (Rate)	Pressure	Page
LS08-30	18.9 L/min	240 bar	402

Threaded cartridge
hydrauliccheck
valve



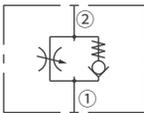
Model	Flow (Rate)	Pressure	Page
XL4CK30	30 L/min	350 bar	406

Embedded
poppet hydraulic
check valve



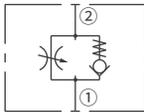
Model	Flow (Rate)	Pressure	Page
XLCVB0-G14.00	22.7L/min	350 bar	410

Threaded cartridge
check throttle
valve



Model	Flow (Rate)	Pressure	Page
XLFC08-20B	42 L/min	240 bar	414

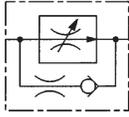
Threaded cartridge
check throttle
valve



Model	Flow (Rate)	Pressure	Page
XLFC10-20B	45.4 L/min	240 bar	418

Flow - Control Valve — Selection Guide

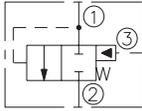
Embedded
fixed-orifice
pressure compensated
Flow control valve



Model	Flow (Rate)	Pressure	Page
XLFRS0-G14.0N.070	7 L/min	250 bar	423

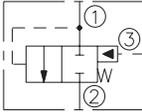
Logic Valve—Selection Guide

Threaded cartridge hydraulicLogic Valve



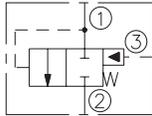
Model	Flow (Rate)	Pressure	Page
EP08-3-35	37.9 L/min	350 bar	428

Threaded cartridge hydraulicLogic Valve



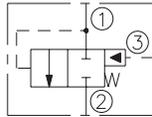
Model	Flow (Rate)	Pressure	Page
EP10-3-S35	75.8 L/min	350 bar	432

Threaded cartridge hydraulicLogic Valve



Model	Flow (Rate)	Pressure	Page
EP12-3-S35	151.4 L/min	350 bar	436

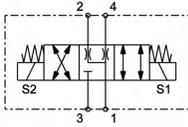
Threaded cartridge hydraulicLogic Valve



Model	Flow (Rate)	Pressure	Page
EP16-3-S35	151.4 L/min	350 bar	440

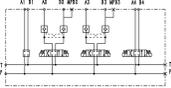
Valve Manifold—Selection Guide

Keyboard block



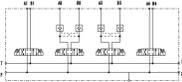
Model	Flow (Rate)	Pressure	Page
BKD-A-06/1/SM	11.4 L/min	210 bar	446

Vise Valve Manifold



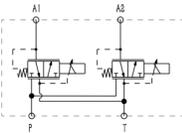
Model	Flow (Rate)	Pressure	Page
BKD-C-06/E/XG-7	60 L/min	315 bar	450

Vise Valve Manifold



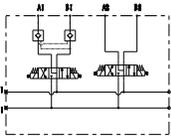
Model	Flow (Rate)	Pressure	Page
BKD-C-06/F/XG-4	60 L/min	315 bar	454

Dual Valve Manifold



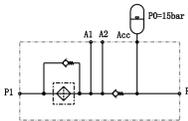
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/2/ZL-1	20 L/min	50 bar	458

Dovetail arm Valve Manifold



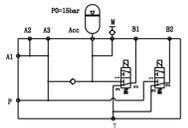
Model	Flow (Rate)	Pressure	Page
BKD-C-08/C/XG-2	60 L/min	315 bar	462

Pilot Valve Manifold



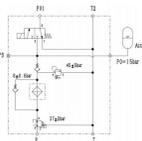
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/1/HW-2	60 L/min	315 bar	466

Pilot Valve Manifold



Model	Accumulator	Flow (Rate)	Pressure	Page
BPLD-A-06/3/XG-2	0.5 L	40 L/min	30 bar	470

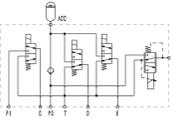
1-section pressure reducing relief Valve Manifold



Model	Flow (Rate)	Pressure	Page
BPLD-A-06/4/JH-2	11.4 L/min	210 bar	474

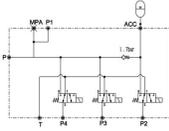
Valve Manifold—Selection Guide

Triple pressure reducing Valve Manifold



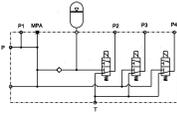
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/4/SY	14 L/min	50 bar	480

Triple Valve Manifold



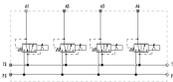
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/4/ZL-1	25 L/min	100 bar	484

Pilot Valve Manifold



Model	Flow (Rate)	Pressure	Page
BPLD-A-06/4/ZL-M	25 L/min	40 bar	488

4-section Valve Manifold



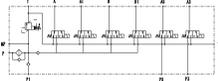
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/4/ZL	30 L/min	50 bar	492

7-section Valve Manifold



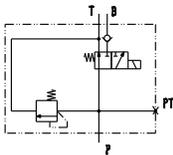
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/8/ZL	20 L/min	50 bar	496

Pilot oil supply Valve Manifold



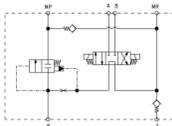
Model	Flow (Rate)	Pressure	Page
BPLD-A-06/1/XG-5	30 L/min	210 bar	500

Solenoid Valve Manifold



Model	Flow (Rate)	Pressure	Page
BPLD-A-08/3/SY	60 L/min	50 bar	504

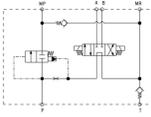
Sweeper Valve Manifold



Model	Flow (Rate)	Pressure	Page
BPLD-A-10/5/XG	140 L/min	210 bar	508

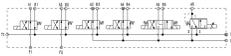
Valve Manifold—Selection Guide

1-section
Directional control
Valve Manifold



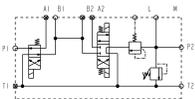
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/1/BJ	80 L/min	350 bar	512

6-section
Valve
Manifold



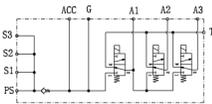
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/1E/XG-3	5 L/min	50 bar	516

6-section
Valve
Manifold



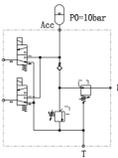
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/2B/XG-2	60 L/min	315 bar	520

Triple
Valve
Manifold



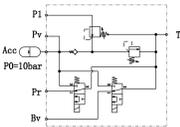
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/4/LG-3	16 L/min	50 bar	524

Dual pressure
reducing
relief Valve Manifold



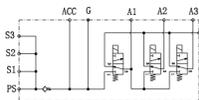
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/5/LG-1	16 L/min	50 bar	528

Dual pressure
reducing
relief
Valve Manifold



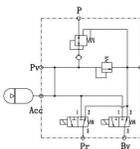
Model	Accumulator	Flow (Rate)	Pressure	Page
BPLD-C-06/5/LG-2	0.32 L	20 L/min	350 bar	532

4-section Valve
Manifold



Model	Flow (Rate)	Pressure	Page
BPLD-C-06/5/LG-4	16 L/min	50 bar	536

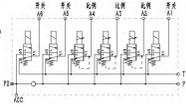
Pilot Valve
Manifold



Model	Accumulator	Flow (Rate)	Pressure	Page
BPLD-C-06/5/SY	0.32 L	20 L/min	350 bar	540

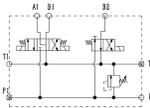
Valve Manifold—Selection Guide

6-section Valve Manifold



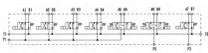
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/7/TZ	15 L/min	50 bar	544

Integrated Valve Manifold



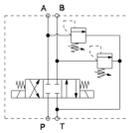
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/C/XG-6	60 L/min	315 bar	550

7-section Valve Manifold



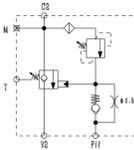
Model	Flow (Rate)	Pressure	Page
BPLD-C-06/G/XG-8	60 L/min	315 bar	554

1-section Dual relief Valve Manifold



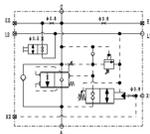
Model	Flow (Rate)	Pressure	Page
BPLD-C-10/3/BJ	80 L/min	280 bar	558

Explosion-proof valve



Model	Diameter	Flow (Rate)	Pressure	Page
CMV-50R-DN10-F-G3/8	10 L	50 L/min	420 bar	562

Flanged Explosion-proof valve



Model	Diameter	Flow (Rate)	Pressure	Page
CMV-600	10 L	50 L/min	420 bar	566

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2.1	SV08-2-20 Solenoid Directional Valve	023-026
2.2	SV08-2-21 Solenoid Directional Valve	027-030
2.3	SV08-2-22 Solenoid Directional Valve	031-034
2.4	SV08-2-23 Solenoid Directional Valve	035-038
2.5	SV08-2-24 Solenoid Directional Valve	039-042
2.6	SV08-2-25 Solenoid Directional Valve	043-046
2.7	SV08-2-26 Solenoid Directional Valve	047-050
2.8	SV08-2-28 Solenoid Directional Valve	051-054
2.9	SV08-2-29 Solenoid Directional Valve	055-058
2.10	SV08-2-B22 Solenoid Directional Valve	059-062
2.11	SV08-3-30 Solenoid Directional Valve	063-066
2.12	SDV10-3-21 Solenoid Directional Valve	067-070
2.13	SDV08-3-26 Solenoid Directional Valve	071-074
2.14	SDV08-3-30 Solenoid Directional Valve	075-078
2.15	SV08-3-31 Solenoid Directional Valve	079-082
2.16	SDV08-3-31 Solenoid Directional Valve	083-086
2.17	SV08-3-33 Solenoid Directional Valve	087-090
2.18	SV08-3-35 Solenoid Directional Valve	091-094
2.19	SDV08-4-40 Solenoid Directional Valve	095-098
2.20	SV08-4-40R Solenoid Directional Valve	099-102
2.21	SV08-4-40 Solenoid Directional Valve	103-106
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2.23	SV08-4-42 Solenoid Directional Valve	111-114

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2.42	SV10-4-40R Solenoid Directional Valve	187-190
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SOLINER

2.1

SV08-2-20

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	30.2(see performance curve)

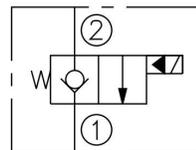
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof E-TYPE coil
- Industry-common cavity
- Compact construction

Contents

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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Solenoid drive 2-position, normally-closed, pilot-operated seat-type hydraulic screw-in cartridge valve
Used for shut-off or load-holding functions in low-flow circuits.

Working Principle

SV08-20 De-energised: SV08-20 acts as a check valve, permitting free flow from port ① to port ② and blocking reverse flow from ② to ①.

Energised: The cartridge poppet lifts, opening a flow path from ② to ①. Flow from ① to ② is now greatly restricted; if this forward path must also be open, refer to the SV08-22 version.



Model Description

SV08-2-20		-		-		-		-		-	
Model options		(blank)		Standard coil voltage		Standard coil termination (VDC)					
150µ Strainer Screen S				0 No coil**		DS Double spade terminals					
Manual override M				10 10 VDC †		DG DIN 43650					
				12 12 VDC		DL Wire (2)					
				24 24 VDC		DL/W Wire, with Weatherpak® Connector					
				36 36 VDC							
				48 48 VDC		DR Deutsch DT04-2P					
Valve block oil port		Order plug-in components only 0		24 24 VAC							
SAE 4		4T		115 115 VAC		Standard coil termination (VAC)					
SAE 6		6T		230 230 VAC		AG DIN 43650					
SAE 8		8T				AP 1/2 Inch Wire conduit					
1/4 Inch BSP*		2B				E-coil Terminal (VDC)					
3/8 Inch BSP*		3B				ER Deutsch DT04-2P (IP69K-rated)					
*BSP valve block; UK-built only						EY Metri-Pack® 150 (IP69K-rated)					
										Built-in diode coil available; Please consult the factory.	
Seal material				E-coil							
NBR (standard)		N		10 10 VDC							
FKM		V		12 12 VDC							
				20 20 VDC							
				24 24 VDC							

Materials

Cartridge:
Weight: 0.09 kg (0.20 lb) ; Steel, working surfaces hardened; zinc-plated exterior; NBR O-rings and back-up rings (standard).

Standard valve block:
Weight: 0.16kg Anodized high-strength aluminum alloy, Rated Pressure 达 240bar; We offer ductile iron and steel valve blocks; dimensions may vary., please consult the factory.

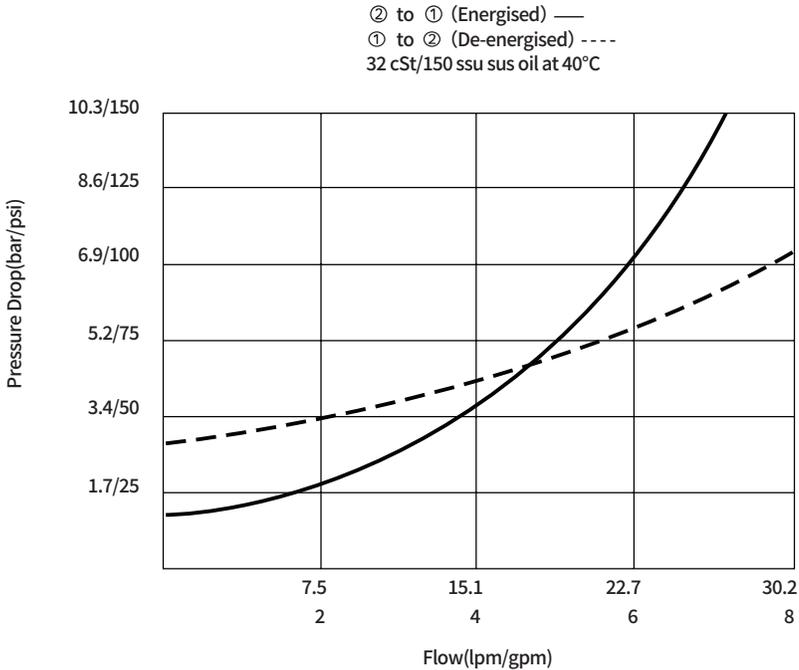
Standard coil:
Weight: 0.11kg (0.25 lb); Integrated thermoplastic encapsulation; Class-H high-temperature magnet wire.

E-type coil:
Weight: 0.14kg (0.3 lb); Rugged metal-shell fully encapsulated, IP69K rated, with Deutsch connector.

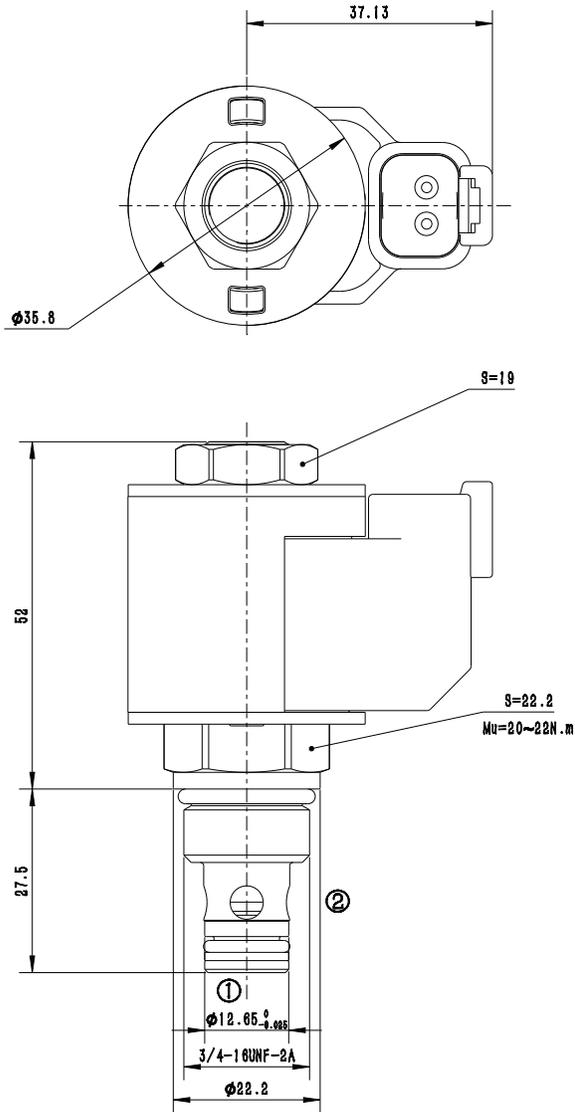
Technical Data

Rated Pressure	207 bar (3000 psi)	
Max. Flow	30.2 L/min (8 gpm)	
Internal leakage	≤ 15 : 85 % of nominal voltage (3drops/min) @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC (Full-wave rectified) 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectified) 0.7A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.2

SV08-2-21

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	37.9 (see performance curve)

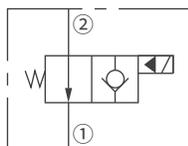
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Full pressure applied to all ports
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- Optional IP69K waterproof E-TYPE coil

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Function Symbol



Description

Solenoid drive, 2-way, 2-position, normally-open, pilot-operated seat-type hydraulic screw-in cartridge valve. Used as a low-leakage shut-off or load-holding valve.

Working Principle

De-energised: Free flow from port ② to port ①; flow ① → ② is strongly restricted.
 Energised: Poppet closes the seat and blocks flow ② → ①.
 Once pressure at port ① overcomes the solenoid force (3.4 – 10.3 bar / 50 – 150 psi), the cartridge permits flow ① → ②.
 Emergency manual override: Press and hold the override button.



Model Description

SV08-2-21					
Model options		Standard coil voltage		Standard coil termination (VDC)	
None (blank)		0 No coil**		DS Double spade terminals	
Manual override M		10 10 VDC †		DG DIN 43650	
		12 12 VDC		DL Wire (2)	
		24 24 VDC		DL/W Wire, with Weatherpak® Connector	
		36 36 VDC		DR Deutsch DT04-2P	
		48 48 VDC			
Valve block oil port		24 24 VAC		Standard coil termination (VAC)	
Order plug-in components only 0		115 115 VAC		AG DIN 43650	
SAE 6 6T		230 230 VAC		AP 1/2 Inch Wire conduit	
1/4 Inch BSP* 2B				E-coil Terminal (VDC)	
3/8 Inch BSP* 3B				ER Deutsch DT04-2P (IP69K rated)	
				EY Metri-Pack® 150 (IP69K rated)	
				Built-in diode coil available; Please consult the factory	
		E-coil			
		10 10 VDC			
		12 12 VDC			
		20 20 VDC			
		24 24 VDC			
Seal material					
NBR (standard) N					
FKM V					
PU P					

**Includes standard coil nut and coil partition plate
 † Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb) ; Steel, working surfaces hardened; zinc-plated exterior; NBR O-rings and back-up rings (standard)

Standard valve block:

Weight: 0.16 kg (0.35 lb) ; Anodized high-strength aluminum alloy, Grade 6061T6, Rated Pressure 240 bar (3500 psi) ; Ductile-iron and steel valve blocks available; dimensions may vary, please consult the factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire;

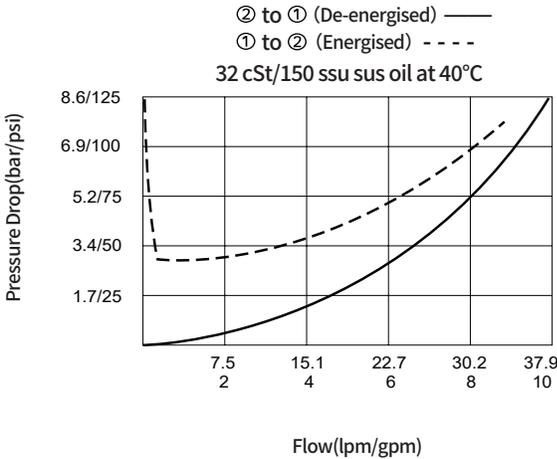
E-type coil:

Weight: 0.14 kg (0.3 lb) ; rugged metal-shell fully encapsulated coil; With Integrated Connector.

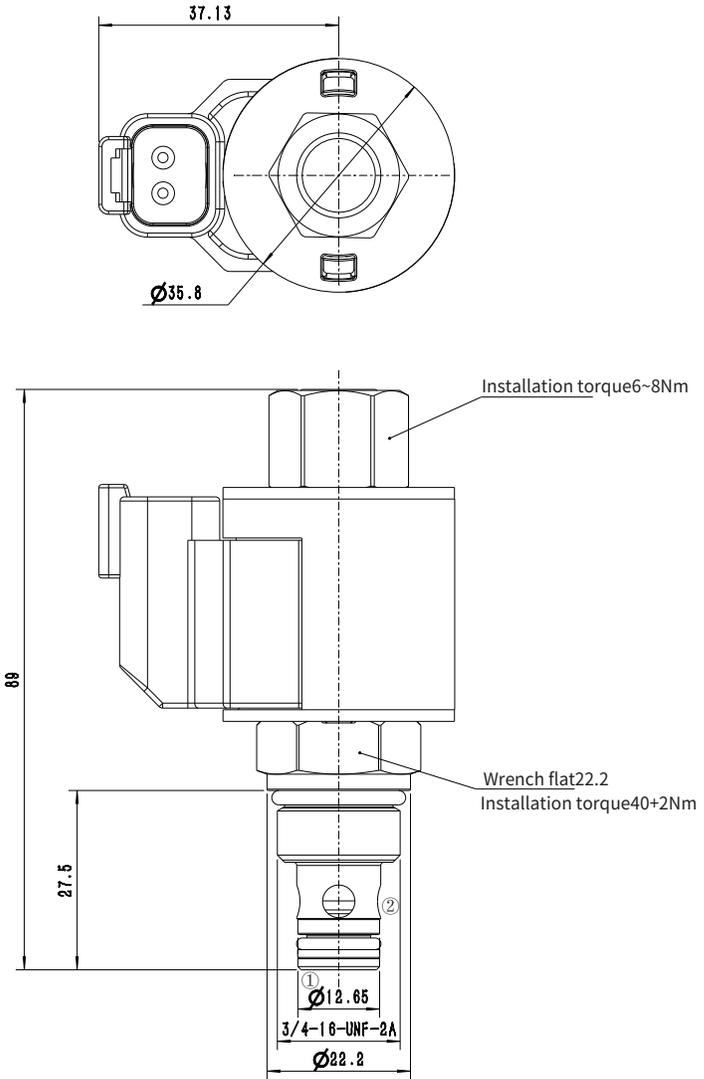
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	37.9L/min (10gpm)	
Internal leakage	≤0.15ml/min (3drops/min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration1.2A; 115VAC duration 0.13A
	D-type coil	12VDC duration1.4A; 24VDCduration0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	40 to100°C (NBR seal)	
	-26 to204°C(FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.3

SV08-2-22

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	30.2 (see performance curve)

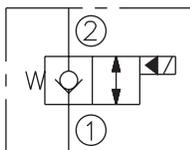
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- IP69K waterproof E-TYPE coil
- Industry-common cavity
- Compact construction

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Function Symbol



Description

Solenoid drive, 2-way, normally-closed, seat-type hydraulic screw-in cartridge valve, Used for low-leakage shut-off and load-holding applications.

Working Principle

De-energised: SV08-22 used as check valve, permitting flow ① → ②, while reverse flow ② → ① is blocked.

Energised: Poppet lifts, opening flow ② → ①; in this mode bidirectional flow is permitted.



Model Description

SV08-2-22									
Model options				Standard coil voltage				Standard coil termination (VDC)	
	None (blank)			0	No coil**	DS	Double spade terminals		
Manual override	M	10	10 VDC [†]			DG	DIN 43650		
filter	S	12	12 VDC			DL	Wire (2)		
		24	24 VDC			DL/W	Wire, with Weatherpak [®]		
Valve block oil port		36	36 VDC			DR	Deutsch DT04-2P		
Order plug-in components only	0	48	48 VDC						Standard coil termination (VAC)
SAE 4	4T	24	24 VAC			AG	DIN 43650		
SAE 6	6T	115	115 VAC			AP	1/2 InchWire conduit		
SAE 8	8T	230	230 VAC			ER	Deutsch DT04-2P		E-coil Terminal (VDC)
1/4 Inch	BSP* 2B					EY	Metri-Pack [®] 150		(IP69K rated)
3/8 Inch	BSP* 3B								(IP69K rated)
1/2 Inch	BSP* 4B								
*BSP valve block									
UK-built only									
Seal material				E-coil					
NBR (standard)	N	10	10 VDC	10	10 VDC				
FKM	V	12	12 VDC	12	12 VDC				
		20	20 VDC	20	20 VDC				
		24	24 VDC	24	24 VDC				

**Includes standard coil nut
[†] Only for DS, DW, or DL terminals.

Built-in diode coil available; Please consult the factory

Materials

Cartridge:

Weight:0.09 kg (0.20 lb) ;Steel, working surfaces hardened; zinc-plated exterior;NBR O-rings and back-up rings (standard).

Standard valve block:

Weight:0.16 kgAnodized high-strength aluminum alloy, Rated Pressure 240bar;Ductile-iron and steel valve blocks available;dimensions may vary, please consult the factory.

Standard coil:

Weight:0.11 kg(0.25 lb);Integrated thermoplastic encapsulation;Class-H high-temperature magnet wire.

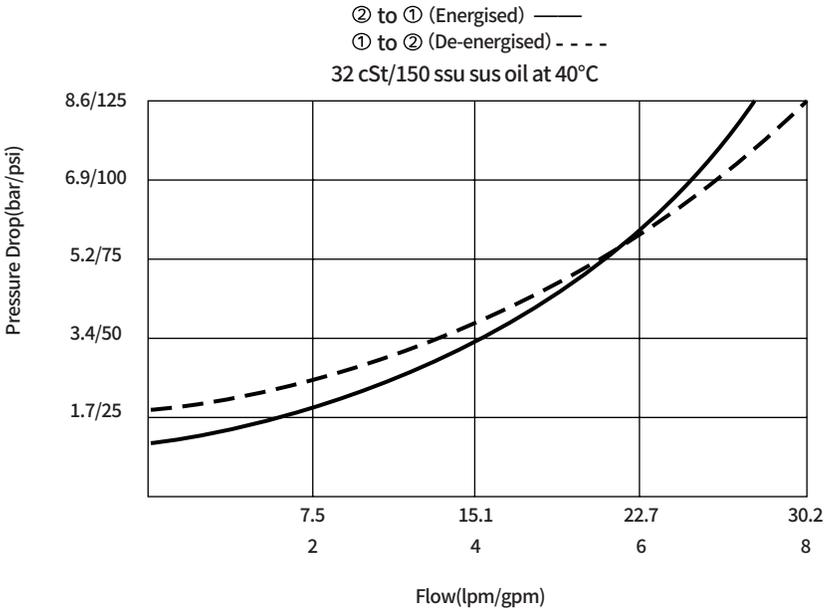
E-type coil:

Weight:0.14 kg(0.3 lb);Rugged metal-shell fully encapsulated, IP69K rated, with Deutsch connector.

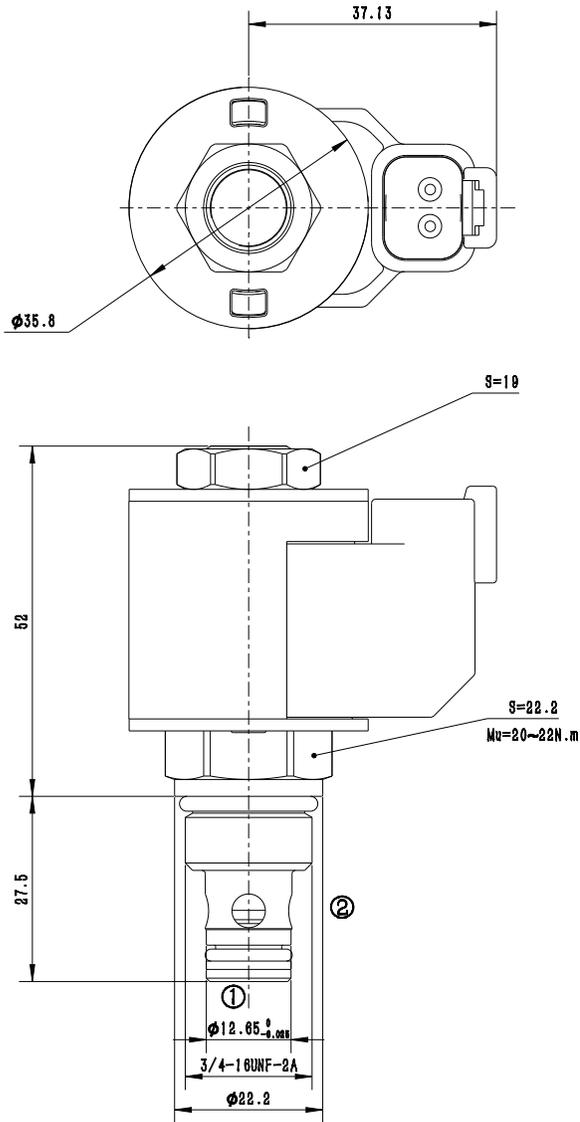
Technical Data

Rated Pressure	207 bar (3000 psi)	
Maximum Flow	30.2 L/min (8 gpm)	
Internal leakage	≤ 15 : 85 % of nominal voltage (3drops/min) @207 bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC (Full-wave rectified) duration 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectified) duration 0.7A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.4

SV08-2-23

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	30.2 (see performance curve)

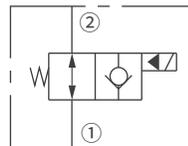
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Full pressure applied to all ports
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- Optional IP69K waterproof E-TYPE coil

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Function Symbol



Description

Solenoid drive, 2-way, 2-position, normally-open, pilot-operated seat-type hydraulic screw-in cartridge valve. Used as a low-leakage shut-off or load-holding valve.

Working Principle

De-energised: poppet lifts, permitting flow ② → ①; flow ① → ② is also allowed.

Energised: functions as a check valve; once pressure at port ① overcomes the solenoid force (3.4 – 10.3 bar / 50 – 150 psi), flow ① → ② is allowed while reverse flow ② → ① is blocked. Emergency manual override: press and hold the override button.



Model Description

SV08-2-23		Standard coil voltage	Standard coil termination (VDC)
Model options			
None	(blank)	0 No coil**	DS Double spade terminals
Manual override	M	10 10 VDC †	DG DIN 43650
		12 12 VDC	DL Wire (2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
		36 36 VDC	
		48 48 VDC	DR Deutsch DT04-2P
Valve block oil port		24 24 VAC	
Order plug-in components only	0	115 115 VAC	Standard coil termination (VAC)
	SAE 6	230 230 VAC	AG DIN 43650
	1/4 Inch BSP*		AP 1/2 InchWire conduit
	3/8 Inch BSP*		
	2B		E-coil Terminal (VDC)
	3B		ER Deutsch DT04-2P (IP69K-rated)
			EY Metri-Pack®150 (IP69K-rated)
			Built-in diode coil available; Please consult the factory
Seal material		E-coil	
NBR (standard)	N	10 10 VDC	
FKM	V	12 12 VDC	
PU	P	20 20 VDC	
		24 24 VDC	

**Includes standard coil nut and coil partition plate

†Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); Steel, working surfaces hardened; zinc-plated exterior; NBR O-rings and back-up rings (standard)

Standard valve block:

Weight: 0.16 kg (0.35 lb) ; Anodized high-strength aluminum alloy, Grade 6061T6, Rated Pressure 240 bar (3500 psi) ; Ductile-iron and steel valve blocks available; dimensions may vary, please consult the factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire;

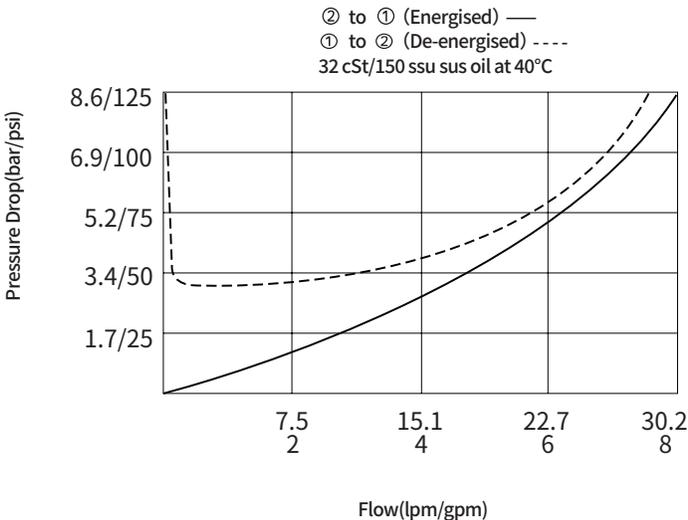
E-type coil:

Weight: 0.14 kg (0.3 lb) ; rugged metal-shell fully encapsulated coil; IP69K rated, With Integrated Connector.

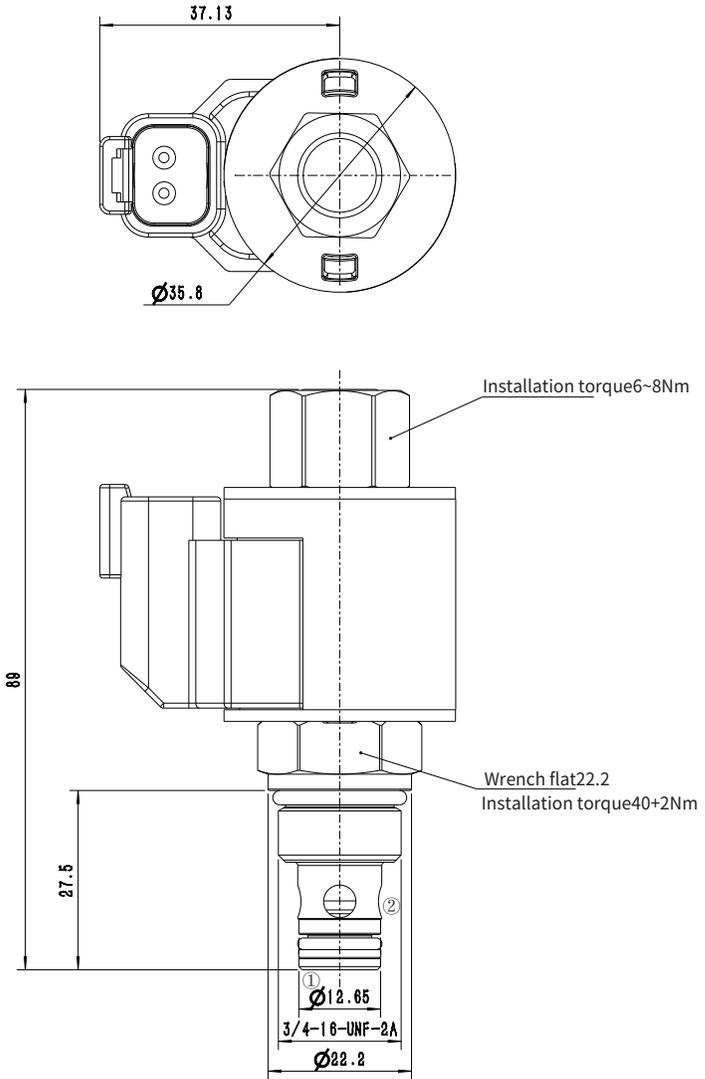
Technical Data

Rated Pressure	207bar (3000psi)	
Max. Flow	30.2L/min (8gpm)	
Internal leakage	≤ 0.15mL/min (3drops/min) @207bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC 0.7A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (PU seal)	
	-40 to 100°C (FKM seal)	
	-26 to 204°C (FKM seal)	
oil contamination level	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.5

SV08-2-24

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	17 (see performance curve)

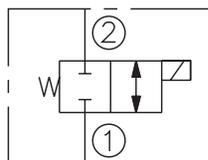
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Both ports can be fully pressurised
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- IP69K waterproof E-TYPE coil
- Industry-common cavity
- Compact construction

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Function Symbol

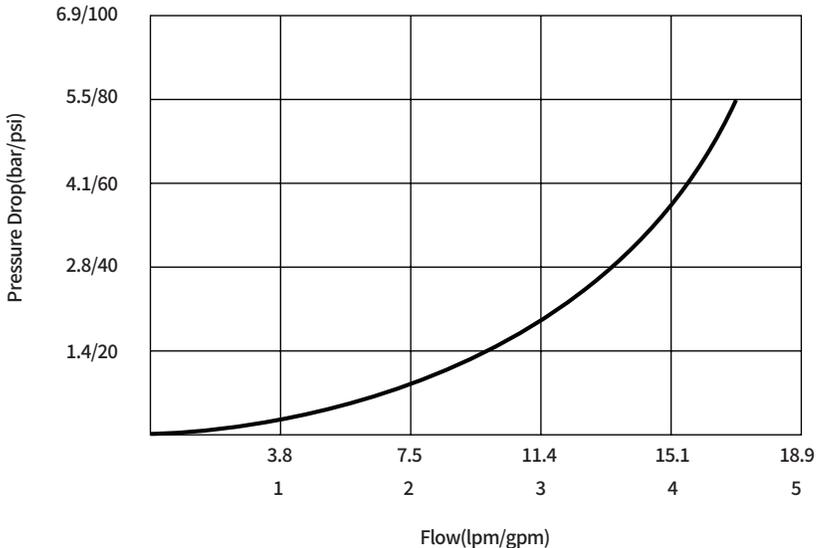


Technical Data

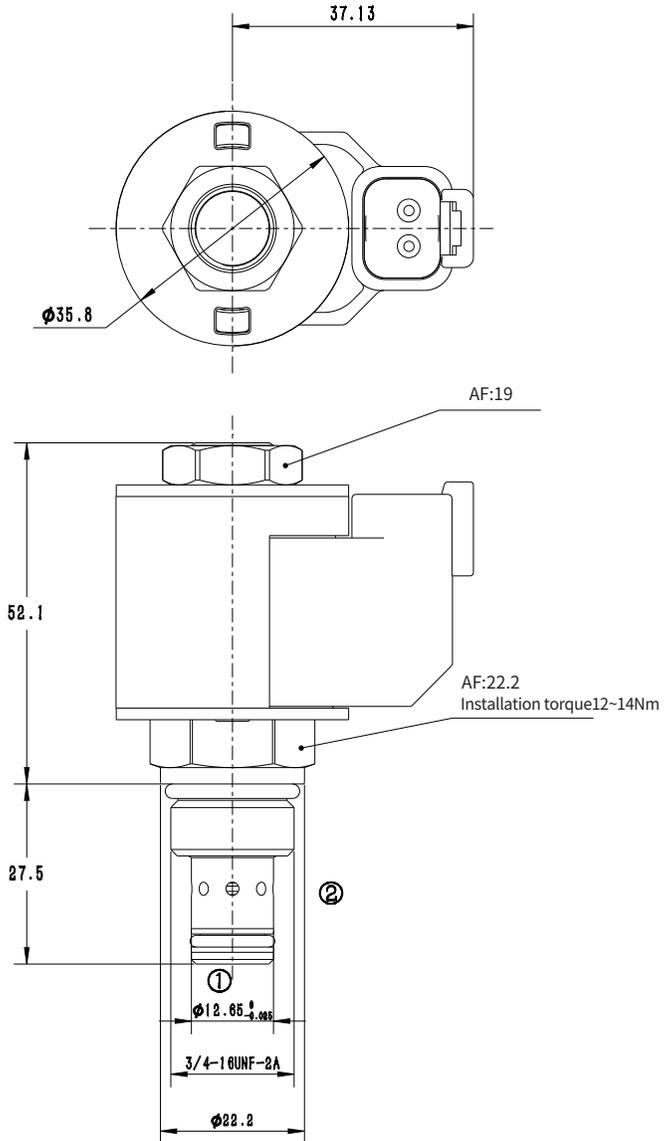
Rated Pressure	207 bar (3000 psi)	
Maximum Flow	17 L/min (4.5 gpm)	
Internal leakage	≤ 15 : 85 % of nominal voltage (3drops/min) @207 bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC (Full-wave rectified) duration 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectified) duration 0.7A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)

(Energised)
32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





SOLINER

2.6

SV08-2-25

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	9.5 (see performance curve)

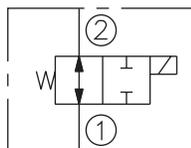
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Full pressure applied to all ports
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- Optional IP69K waterproof E-TYPE coil

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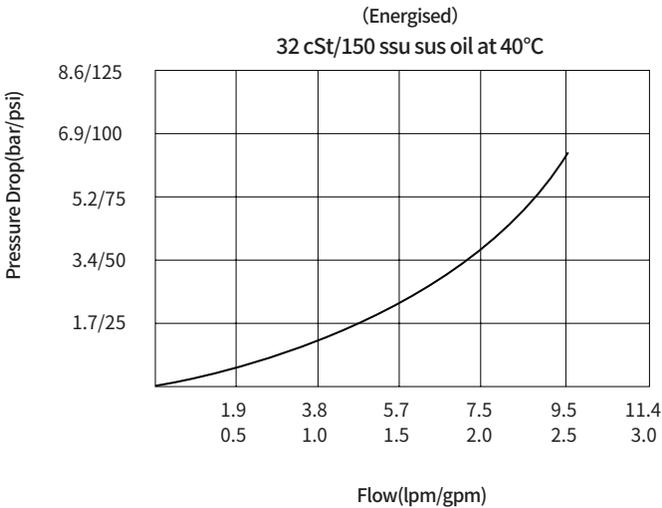
Function Symbol



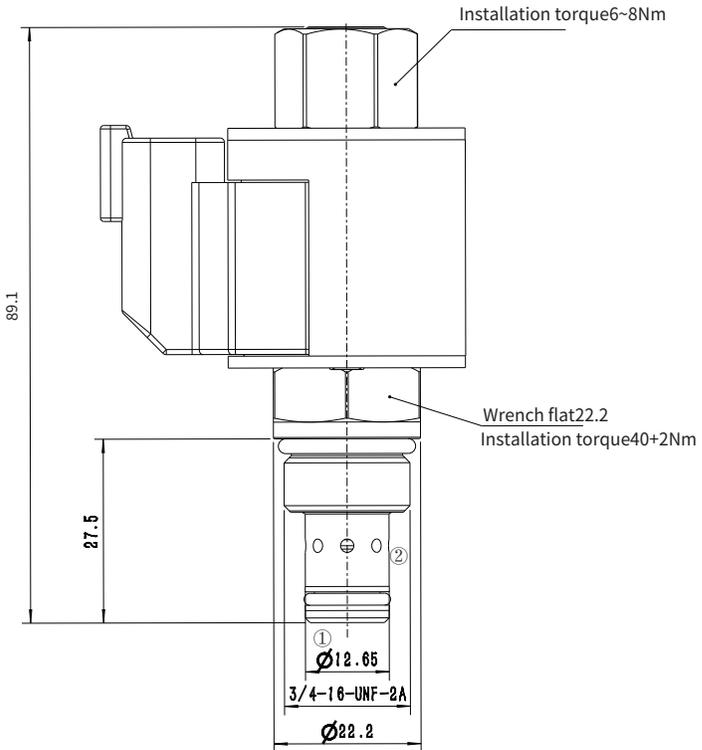
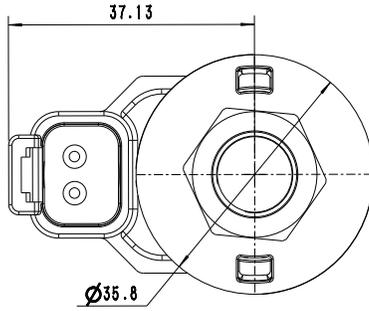
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	9.5L/min (2.5 gpm)	
Internal leakage	≤82ml/min@207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.7

SV08-2-26

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	1.89 (see performance curve)

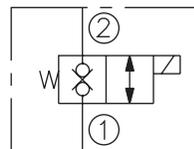
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- IP69K waterproof E-TYPE coil
- Industry-common cavity
- Compact construction

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Function Symbol



Description

Solenoid drive, 2-way, normally-closed, direct-acting poppet-type hydraulic screw-in cartridge valve; used as a low-flow circuit shut-off or load-holding device.

Working Principle

De-energised: SV08-2-26 blocks flow in both directions up to its pressure rating; if pressure at port ① exceeds the rated value, flow ① → ② is permitted.

Energised: poppet lifts, opening the valve for bi-directional flow.

Port ② is recommended as the load-holding port.



Model Description

SV08-2-26			
Model options		Standard coil voltage	Standard coil termination (VDC)
None (blank)		0 No coil**	DS Double spade terminals
150µ Strainer Screen	S	10 10 VDC †	DG DIN 43650
Manual override	M	12 12 VDC	DL Wire(2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
Valve block oil port		36 36 VDC	DR Deutsch DT04-2P
Order plug-in components only	0	48 48 VDC	
SAE 4	4T	24 24 VAC	Standard coil termination (VAC)
SAE 6	6T	115 115 VAC	AG DIN 43650
SAE 8	8T	230 230 VAC	AP 1/2 InchWire conduit
1/4 Inch BSP*	2B	**Includes standard coil nut	E-coil Terminal (VDC)
3/8 Inch BSP*	3B	† Only for DS, DW, or DL terminals.	ER Deutsch DT04-2P (IP69K-rated)
*BSP valve block; UK-built only		E-coil	EY Metri-Pack®150 (IP69K-rated)
Seal material		10 10 VDC	Built-in diode coil available; Please consult the factory
NBR (standard)	N	12 12 VDC	
FKM	V	20 20 VDC	
		24 24 VDC	

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb) ; Steel, working surfaces hardened; zinc-plated exterior; PU (Standard) .

Standard valve block:

Weight: 0.16 kg (0.35 lb) ; Anodized high-strength aluminum alloy, Grade 6061T6, Rated Pressure 240bar(3500psi);

Ductile-iron and steel valve blocks available; dimensions may vary, please consult the factory.

Standard coil:

Weight: 0.11 kg(0.25 lb); Integrated thermoplastic encapsulation; H-level High-temperature resistant magnetic wire.

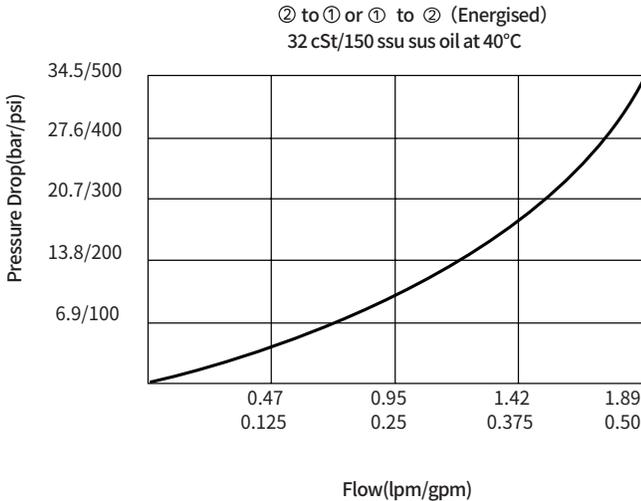
E-type coil:

Weight: 0.14 kg(0.3 lb); Rugged metal-shell fully encapsulated, IP69K rated, with Deutsch connector.

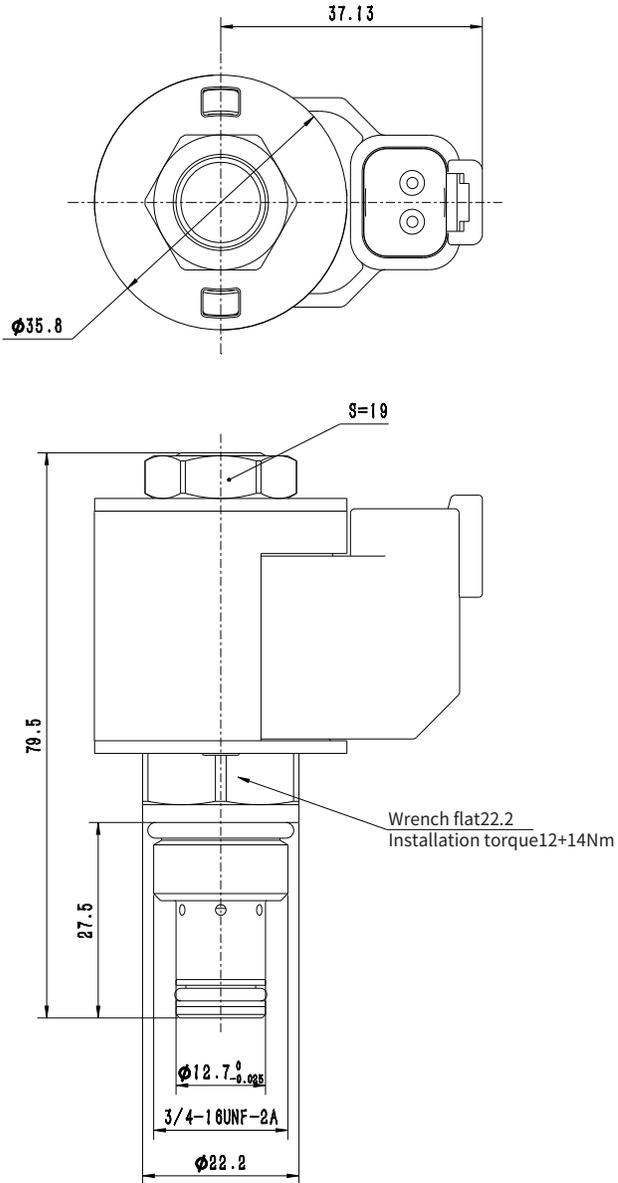
Technical Data

Rated Pressure	207bar (3000psi)	
Max. Flow	1.89L/min (8 gpm)	
Internal leakage	≤ 0.1: 85 % of nominal voltage (3drops/分钟) @207 bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.4A; 24VDC (Full-wave rectified) duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectified) duration 0.83A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420mm ² /s	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.8

SV08-2-28

Solenoid Directional Valve

Rated Pressure (bar)	250
Max. Flow(L/min)	15 (see performance curve)

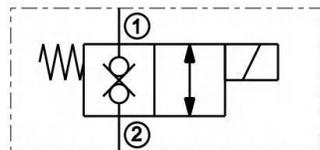
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Full pressure applied to all ports
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- Optional IP69K waterproof E-TYPE coil

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Function Symbol



Description

Solenoid drive, 2-way, 2-position, direct-acting poppet, bi-directional shut-off, hydraulic screw-in cartridge valve .

Working Principle

De-energised: SV08-2-28-N blocks flow in both directions.

Energised: the poppet opens, permitting flow ② → ① or ① → ②.



Model Description

SV08-2-28		-		-		-		-		-	
Model options		Standard coil voltage		Standard coil termination (VDC)							
None	(blank)	0	No coil**	DS	Double spade terminals						
Manual override	M	10	10 VDC †	DG	DIN 43650						
		12	12 VDC	DL	Wire (2)						
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector						
		36	36 VDC	DR	Deutsch DT04-2P						
		48	48 VDC								
Valve block oil port		24	24 VAC	Standard coil termination (VAC)							
Order plug-in components only	0	115	115 VAC	AG	DIN 43650						
SAE 6	6T	230	230 VAC	AP	1/2 InchWire conduit						
1/4 Inch BSP*	2B	E-coil		E-coil Terminal (VDC)							
3/8 Inch BSP*	3B	10	10 VDC	ER	Deutsch DT04-2P (IP69K rated)						
		12	12 VDC	EY	Metri-Pack®150 (IP69K rated)						
		20	20 VDC	Built-in diode coil available; Please consult the factory							
		24	24 VDC								
Seal material											
NBR (standard)	N										
FKM	V										
PU	P										

Materials

Cartridge:

Weight:0.18 kg (0.28 lb) ;Steel, working surfaces hardened; zinc-plated exterior;NBR O-rings and back-up rings (standard)

Standard valve block:

Weight: 0.27 kg (0.60 lb) ; Anodized high-strength aluminum alloy, Grade 6061T6, Rated Pressure 240 bar (3500 psi) ; Ductile-iron and steel valve blocks available; dimensions may vary, please consult the factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire;

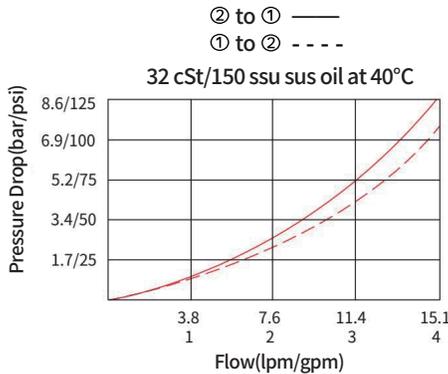
E-type coil:

Weight: 0.14 kg (0.3 lb) ; rugged metal-shell fully encapsulated coil; IP69K rated, With Integrated Connector.

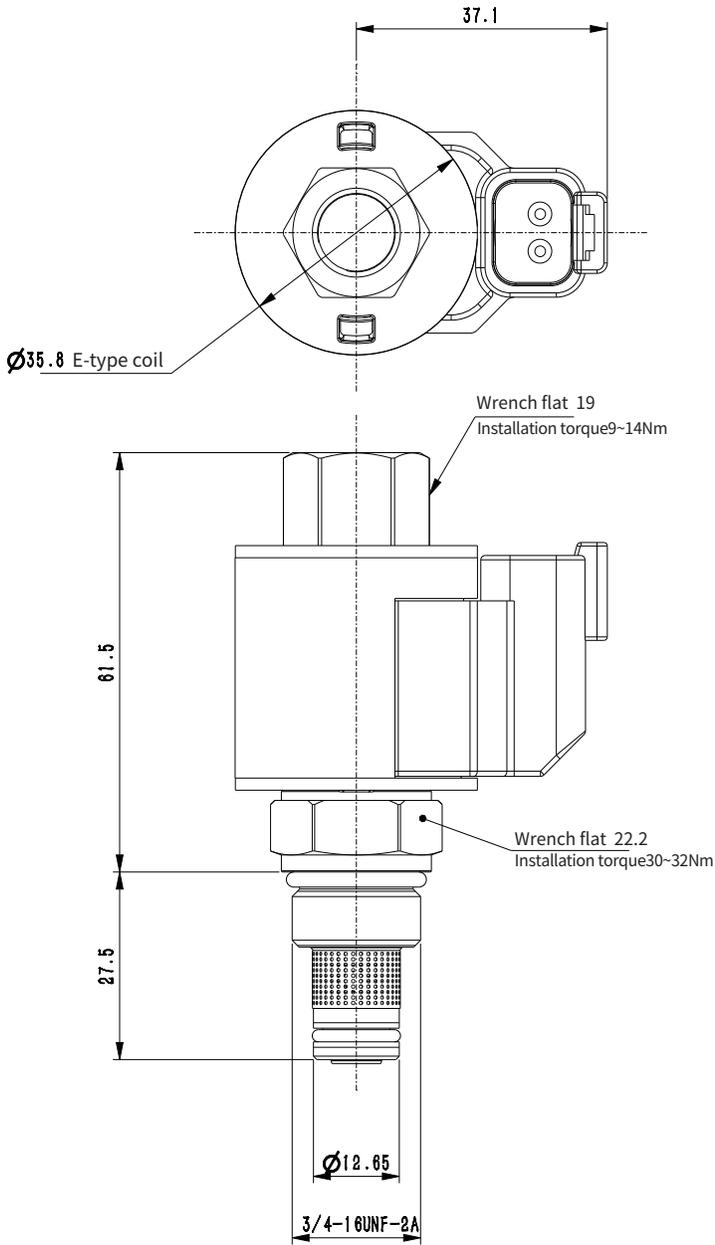
Technical Data

Rated Pressure	250bar (3000psi)	
Maximum Flow	15L/min (3.0 gpm)	
Internal leakage	≤ 0.15 : 85 % of nominal voltage (3drops/min) @210 bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	D-type coil	12VDC duration 1.2A; 115VDC duration 0.13A
	E-type coil	12VDC duration 1.4A; 115VDC duration 0.7A
Minimum pull-in voltage	240bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.9

SV08-2-29

Solenoid Directional Valve

Rated Pressure (bar)	250
Max. Flow(L/min)	15 (see performance curve)

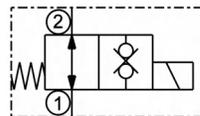
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Full pressure applied to all ports
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- Optional IP69K waterproof E-TYPE coil

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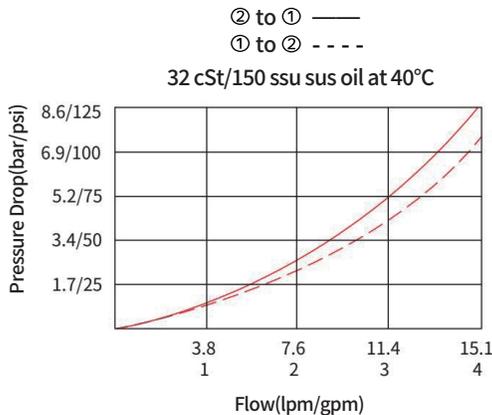
Function Symbol



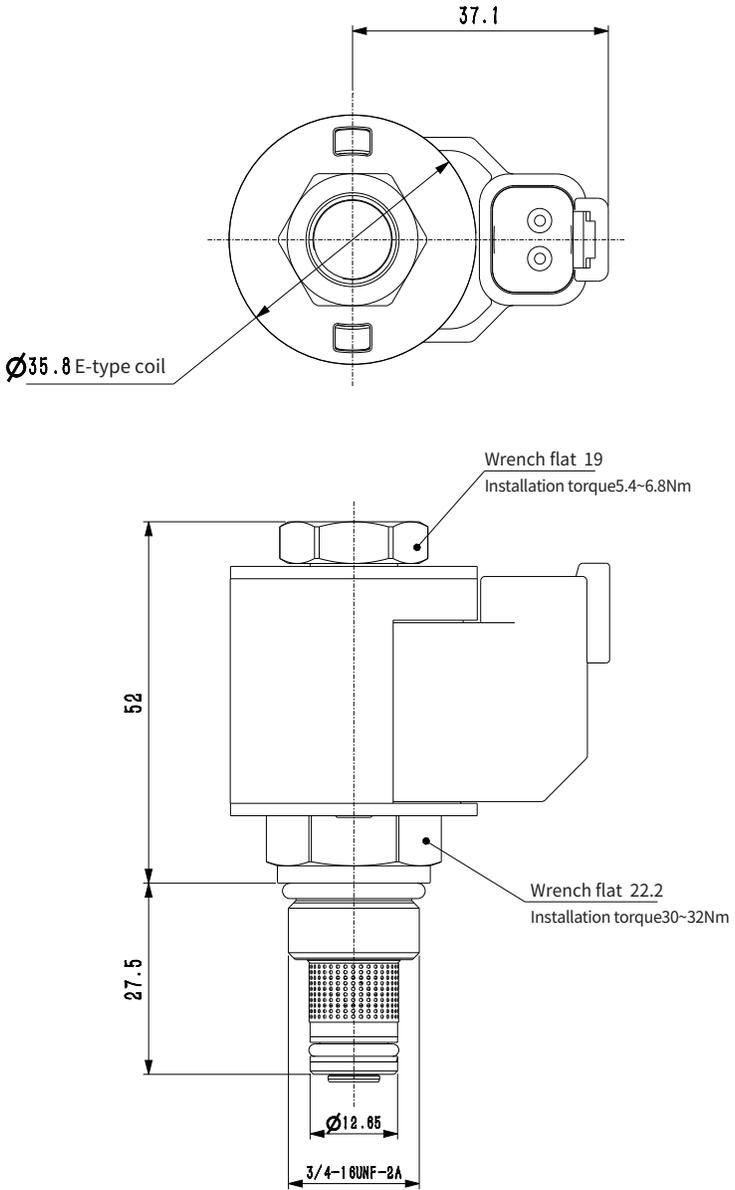
Technical Data

Rated Pressure	250 bar (3000 psi)	
Maximum Flow	15 L/min (8 gpm)	
Internal leakage	≤ 15 : 85 % of nominal voltage (3drops/min) @210 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A 115VDC (Full-wave rectified) duration 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectified) duration 0.7A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.11

SV08-2-B22

Solenoid Directional Valve

Rated Pressure (bar)	210
Max. Flow(L/min)	30.2 (see performance curve)

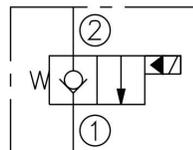
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- IP69K waterproof E-TYPE coil
- Industry-common cavity
- Compact construction

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Function Symbol



Description

Solenoid drive, 2-way, normally-closed, direct-acting poppet-type hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: SV08-B22 acts as a check valve, allowing flow ① → ② while blocking ② → ①;
 Energised: the poppet lifts, opening flow ② → ①; in this mode bi-directional flow is permitted.



Model Description

SV08-2-B22		-		-		-		-		-		-		-		-		-	
Model options		None (blank)		Standard coil voltage		Standard coil termination (VDC)													
150µ Strainer Screen	S	0	No coil**	DS	Double spade terminals														
Manual override	M	10	10 VDC †	DG	DIN 43650														
		12	12 VDC	DL	Wire(2)														
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector														
		36	36 VDC	DR	Deutsch DT04-2P														
Valve block oil port		48	48 VDC	Standard coil termination (VAC)															
Order plug-in components only	0	24	24 VAC	AG	DIN 43650														
SAE 4	4T	115	115 VAC	AP	1/2 InchWire conduit														
SAE 6	6T	230	230 VAC	E-coil Terminal (VDC)															
SAE 8	8T	**Includes standard coil nut		ER	Deutsch DT04-2P														
1/4 Inch BSP*	2B	† Only for DS, DW, or DL terminals.		EY	Metri-Pack®150														
3/8 Inch BSP*	3B	E-coil		(RatedIP69K Standard)															
*BSP Valve block; UK-built only		10	10 VDC	(RatedIP69K Standard)															
		12	12 VDC	Built-in diode coil available; Please consult the factory															
Seal material		20	20 VDC																
NBR (standard)	N	24	24 VDC																
FKM	V																		

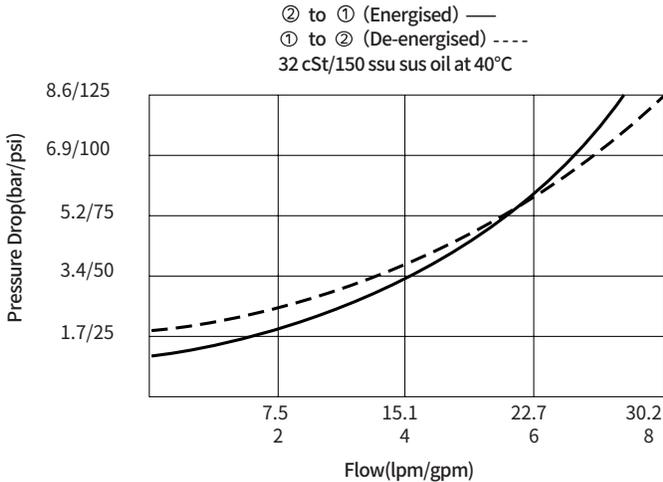
Materials

- Cartridge:** Weight: 0.09 kg (0.20 lb) ;Steel, working surfaces hardened; zinc-plated exterior; PU(standard).
- Standard valve block:** Weight: 0.16 kg (0.35 lb) ; Anodized high-strength aluminum alloy, Grade 6061T6, Rated Pressure 240bar(3500psi);Ductile-iron and steel valve blocks available; dimensions may vary, please consult the factory.
- Standard coil:** Weight: 0.11 kg(0.25 lb); Integrated thermoplastic encapsulation; H-level High-temperature resistant magnetic wire.
- E-type coil:** Weight: 0.41 kg; Rugged metal-shell fully encapsulated, IP69K rated, with Deutsch connector.

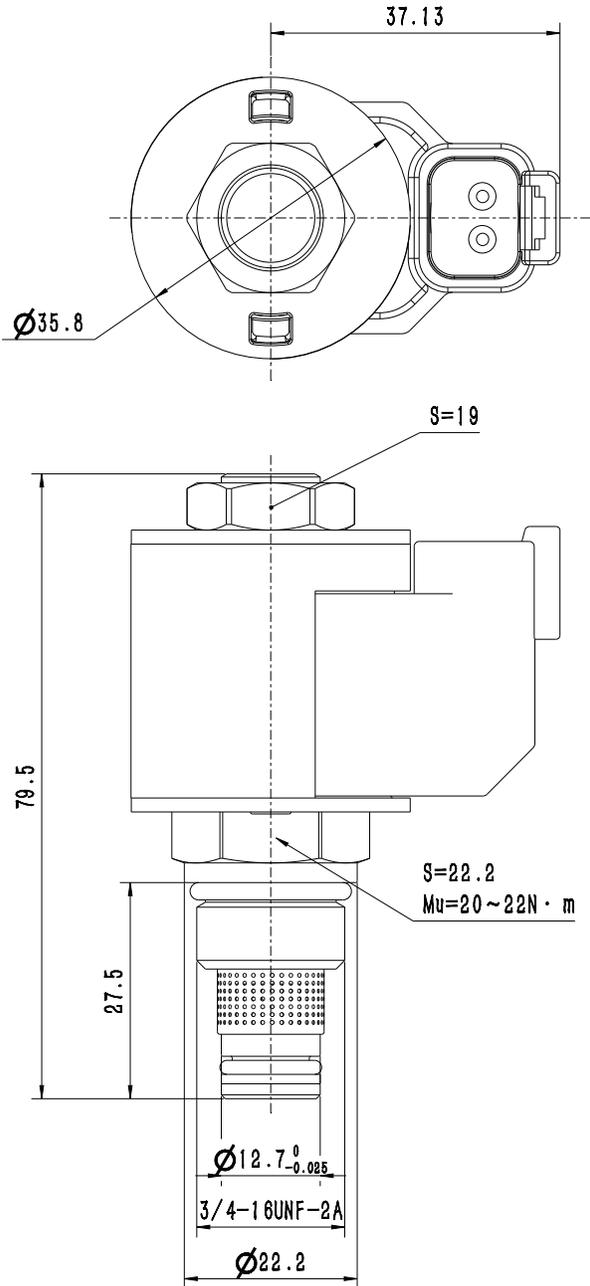
Technical Data

Rated Pressure	207bar (3000psi)	
Max. Flow	30.2L/min (8 gpm)	
Internal leakage	≤0.15: 85 % of nominal voltage (3drops/min) @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.4A; 24VDC duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectified) duration 0.83A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.10

SV08-3-30

Solenoid Directional Valve

Features

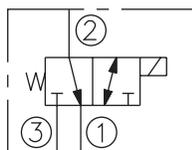
Rated Pressure (bar)	207
Max. Flow(L/min)	15.1 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Full pressure applied to all ports
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- Optional IP69K waterproof E-TYPE coil

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

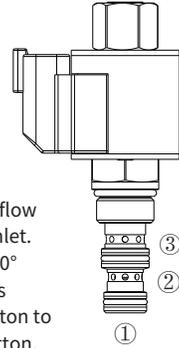
Solenoid drive, 3-way, direct-acting poppet, hydraulic screw-in directional cartridge valve.

Working Principle

De-energised: SV08-30 permits flow ② → ① and blocks port ③.

Energised: the cartridge poppet shifts to open flow ③ → ② while blocking flow from ①. Although port ① can be fully pressurised, it is not to be used as an inlet.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift. For full emergency shift pull the button to its maximum travel and hold. To restore normal valve function press the button, rotate 180° clockwise, then release. The emergency override locks in this position.



Model Description

SV08-3-30		Standard coil voltage		Standard coil termination (VDC)	
Model options	None (blank)	0	No coil**	DS	Double spade terminals
Manual override	M	10	10 VDC †	DG	DIN 43650
		12	12 VDC	DL	Wire (2)
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector
		36	36 VDC		
		48	48 VDC	DR	Deutsch DT04-2P
Valve block oil port		24	24 VAC		
Order plug-in components only	0	115	115 VAC		Standard coil termination (VAC)
SAE 6	6T	230	230 VAC	AG	DIN 43650
1/4 Inch BSP*	2B			AP	1/2 Inch Wire conduit
3/8 Inch BSP*	3B				E-coil Terminal (VDC)
				ER	Deutsch DT04-2P (IP69K rated)
				EY	Metri-Pack®150 (IP69K rated)
Seal material			E-coil		Built-in diode coil available; Please consult the factory
NBR (standard)	N	10	10 VDC		
FKM	V	12	12 VDC		
PU	P	20	20 VDC		
		24	24 VDC		

**Includes standard coil nut and coil partition plate
† Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); Steel, working surfaces hardened; zinc-plated exterior; NBR O-rings and back-up rings (standard)

Standard valve block:

Weight: 0.27 kg (0.60 lb); Anodized high-strength aluminum alloy, Grade 6061T6, Rated Pressure 240 bar (3500 psi); Ductile-iron and steel valve blocks available; dimensions may vary, please consult the factory.

Standard coil:

Weight: 0.11 kg (0.25 lb); Integrated thermoplastic encapsulation; H-level high-temperature magnet wire;

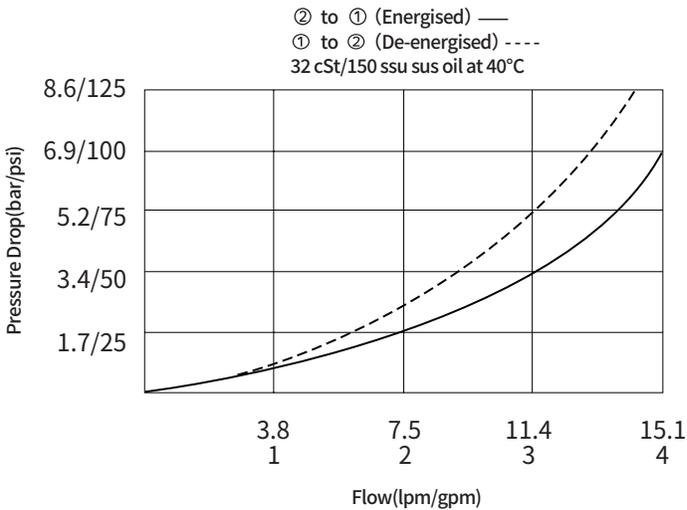
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil; IP69K rated, With Integrated Connector.

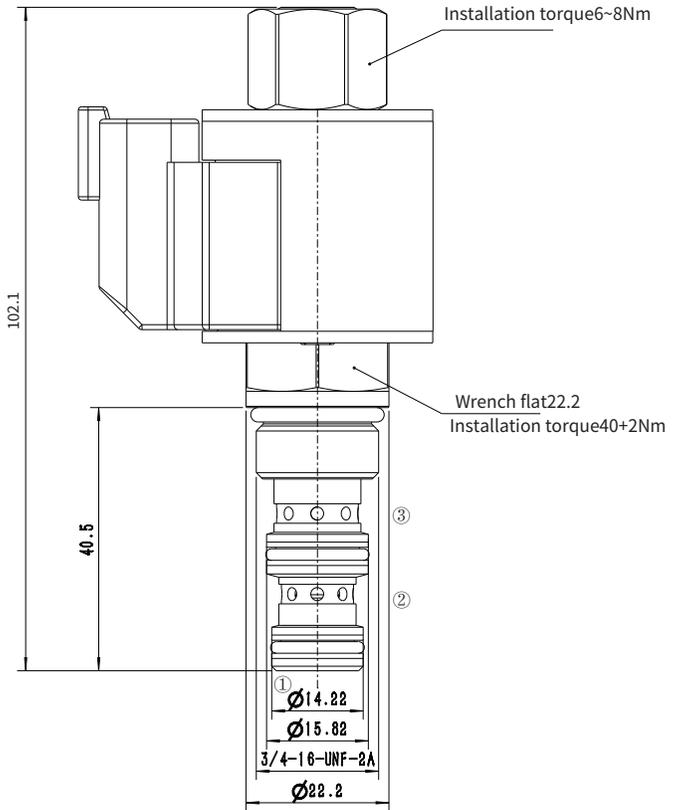
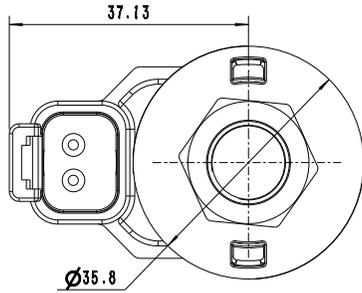
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	15.1L/min (2.5 gpm)	
Internal leakage	Port ③ (de-energized) ≤ 82 ml/min @ 207 bar; Port ① (energized) ≤ 164 ml/min @ 207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC duration 0.13A
	E-type coil	12VDC duration 1.4A; 115VDC duration 0.7A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-3 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.12

SDV10-3-21

Solenoid Directional Valve

Rated Pressure (bar)	350
Max. Flow(L/min)	60 (see performance curve)

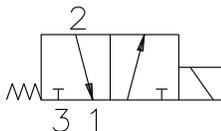
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Manual override Model options
- IP69K waterproof E-TYPE coil
- Industry-common cavity
- Compact construction

Contents

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Outline Dimensions	04

Function Symbol



Description

Solenoid drive, 3-way, cartridge, high-flow, high hydraulic power transmission, offering multiple manual overrides for start/stop control of available oil

Working Principle

De-energised: SDV10-3-21 directional valve connects port 2 to port 1
 Energised: solenoid force overcomes spring force and connects port 3 to port 2



Model Description

SVD10-3-21		-		-		-	
Model options		Standard coil voltage		Standard coil termination (VDC)			
None (blank)		0 No coil**		DS Double spade terminals			
150µ Strainer Screen	S	10 10 VDC †		DG DIN 43650			
Manual override	M	12 12 VDC		DL Wire (2)			
Valve block oil port		24 24 VDC		DL/W Wire, with Weatherpak® Connector			
Order plug-in components only	0	36 36 VDC		DR Deutsch DT04-2P			
SAE 4	4T	48 48 VDC					
SAE 6	6T	24 24 VAC		Standard coil termination (VAC)			
SAE 8	8T	115 115 VAC		AG DIN 43650			
1/4 Inch BSP*	2B	230 230 VAC		AP 1/2 InchWire conduit			
3/8 Inch BSP*	3B	**Includes standard coil nut		E-coil Terminal (VDC)			
*BSP Valve block; UK-built only		E-coil		ER Deutsch DT04-2P (IP69K rated)			
Seal material		10 10 VDC		EY Metri-Pack®150 (IP69K rated)			
NBR (standard)	N	12 12 VDC		Built-in diode coil available; Please consult the factory			
FKM	V	20 20 VDC					
		24 24 VDC					

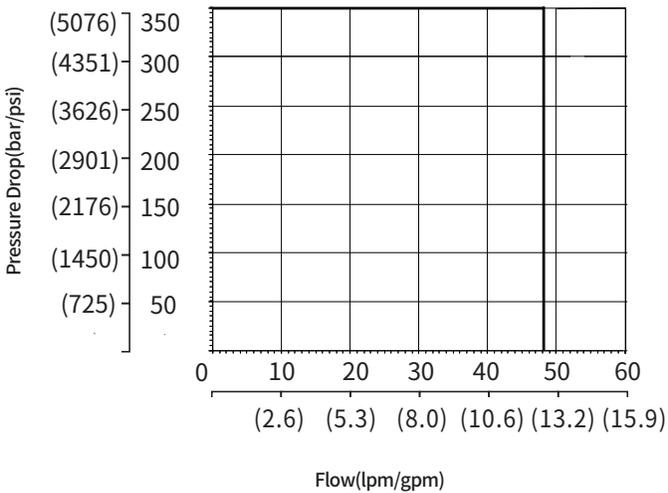
Materials

Cartridge:
 Weight: 0.31 kg (0.68 lb); Steel, working surfaces hardened; zinc-plated exterior;
 Seals: O-rings and back-up rings

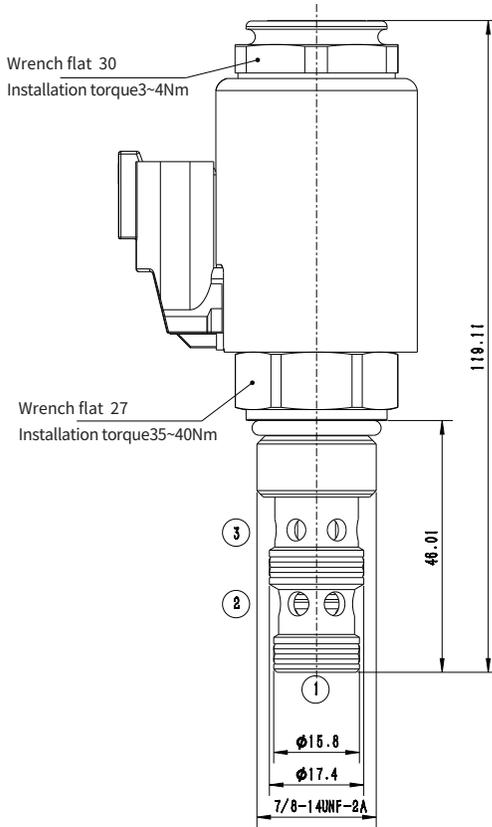
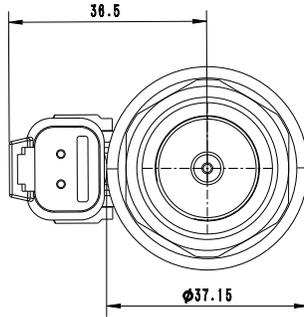
Technical Data

Rated Pressure	350bar (5076psi)
Maximum Flow	60L/min (15.8gpm)
Working medium	Hydraulic fluid to DIN 51524 power-grade requirements
Maximum fluid contamination	level 21/18/15 per ISO 4406:2006
Permissible voltage variation	DC $\pm 15\%$, AC $\pm 15\%$
Continuous load frequency	100%
Maximum switching frequency	15000/h
Cavity detail	VC10-3(See the technical reference materials for details)
Environment Temperature range	-20 to 80 °C
Fluid Temperature range	-20 to 80 °C
Viscosity range	10-500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.13

SDV08-3-26

Solenoid Directional Valve

Rated Pressure (bar)	350
Max. Flow(L/min)	30 (see performance curve)

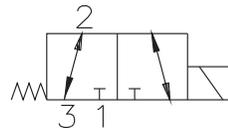
Features

- Hardened and precision-machined components
- High flow capacity
- High hydraulic power transmission
- Offers a variety of manual control functions
- All ports can be fully pressurized
- Various optional spool connections available
- Enclosure type rated to EN 60529 IP67

Contents

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Function Symbol



Description

Solenoid drive-actuated, 3-way, cartridge, high-flow, high hydraulic-power transmission, with multiple manual overrides for controlling the start and stop of available oil flow.

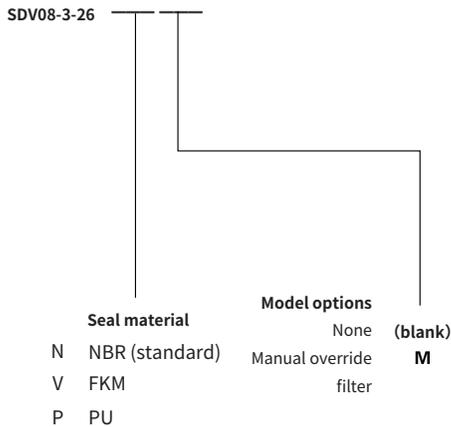
Working Principle

De-energised: SDV08-3-26 directional valve directs flow 2 → 3

Energised: solenoid force overcomes spring force and directs flow 2 → 1



Model Description



Materials

Cartridge:

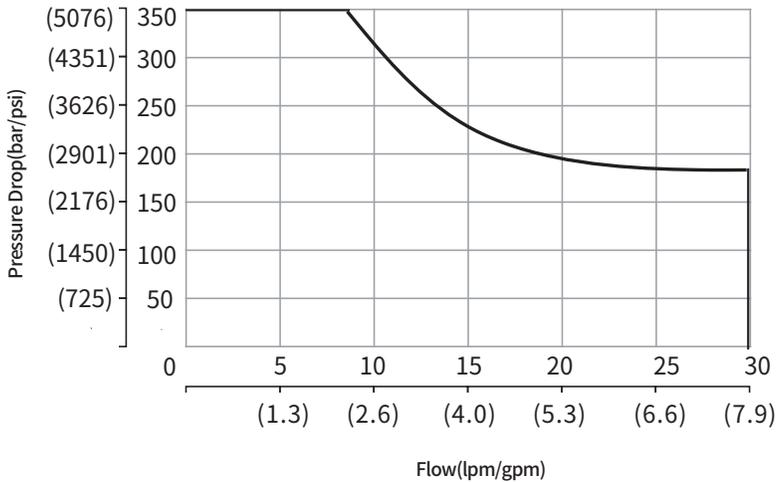
Weight: 0.20 kg (0.44 lb); Steel construction, working surfaces hardened; zinc-plated exterior.

Seals: O-rings and back-up rings.

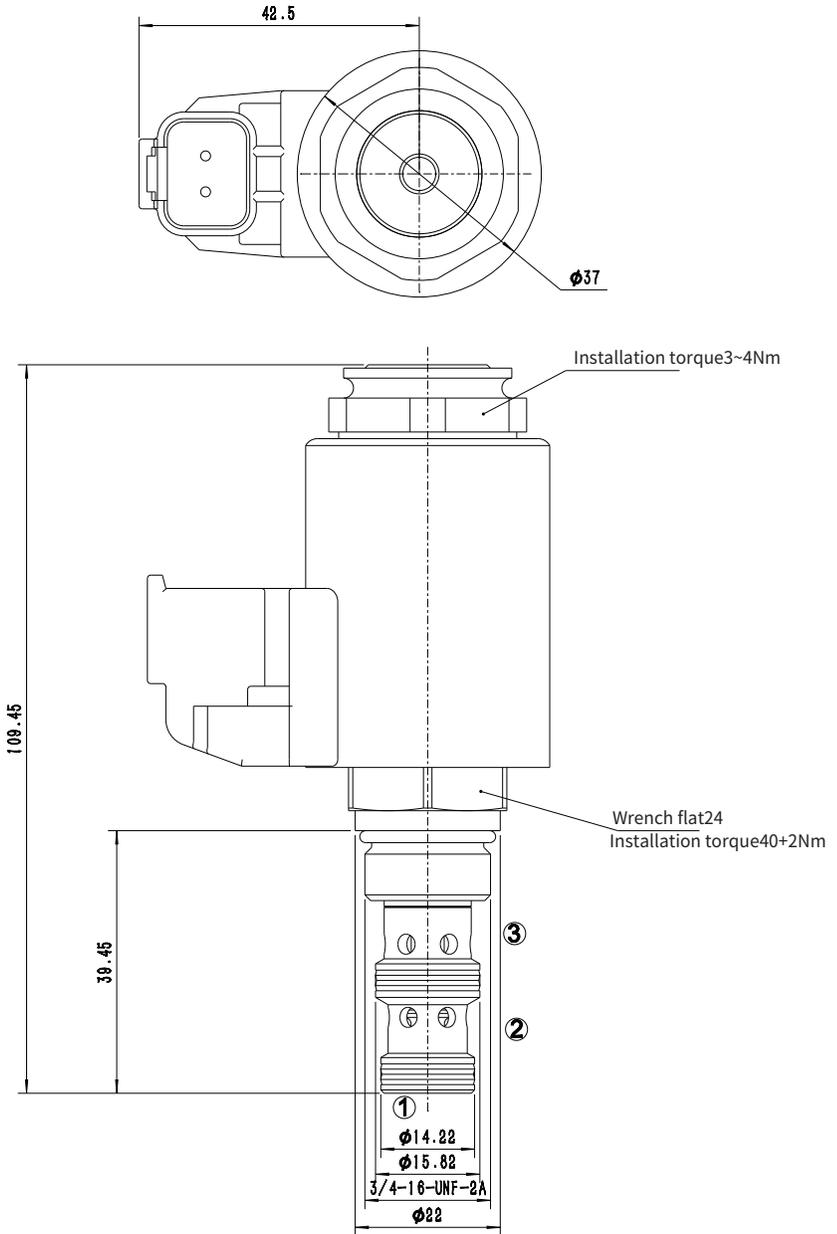
Technical Data

Rated Pressure	350bar (5076 psi)
Maximum Flow	30 L/min (7.9 gpm)
Hydraulic fluid	Hydraulic fluid to DIN 51524 power grade
Permissible rated voltage variation	DC, AC ± 15 %
Fluid temperature range	-20 to 80 °C
Maximum ambient temperature	-20 to 80 °C
Duty cycle	100%
Maximum switching frequency	15000/h
Operating medium	Hydraulic fluid per DIN 51524 power class
Cavity specification	VC08-3
Viscosity range	10 to 500mm ² /s
Coil assembly	C19B
Service life (cycles)	10 ⁷
Valve tightening torque	30+2Nm (22.127 + 1.475 lbf·in)
Plastic nut tightening torque	3+1Nm (2.213+0.738 lbf·in)

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.14

SDV08-3-30

Solenoid Directional Valve

Rated Pressure (bar)	350
Max. Flow(L/min)	30 (see performance curve)

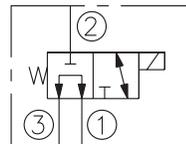
Features

- Hardened and precision-machined components
- High flow capacity
- High hydraulic power transmission
- Offers a variety of manual control functions
- All ports can be fully pressurized
- Various optional spool connections available
- Enclosure type rated to EN 60529 IP67

Contents

Description	02
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Function Symbol



Description

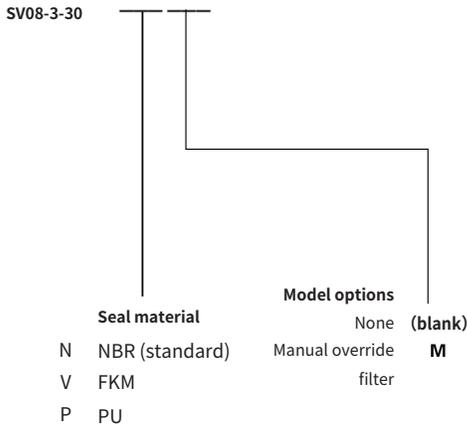
Solenoid drive, 3-way, cartridge, high-flow, high hydraulic power transmission, with multiple manual overrides for start/stop control of available oil

Working Principle

De-energised: SV08-3-30 directional valve directs flow 3 → 1
 Energised: solenoid force overcomes spring force and directs flow 2 → 1



Model Description



Materials

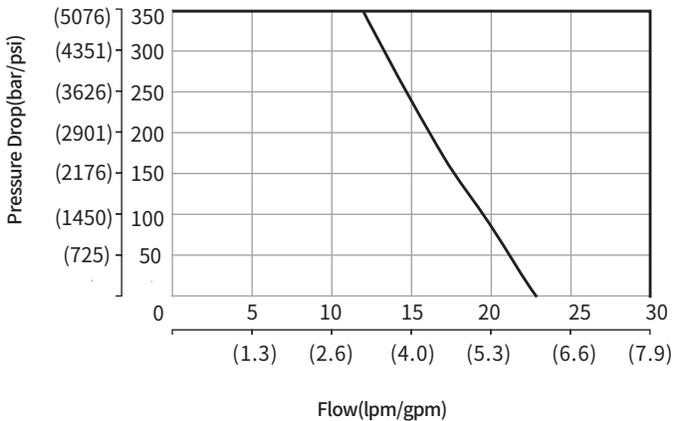
Cartridge:

Weight: 0.20 kg (0.44 lb); Steel construction, working surfaces hardened; zinc-plated exterior.
 Seals: O-rings and back-up rings.

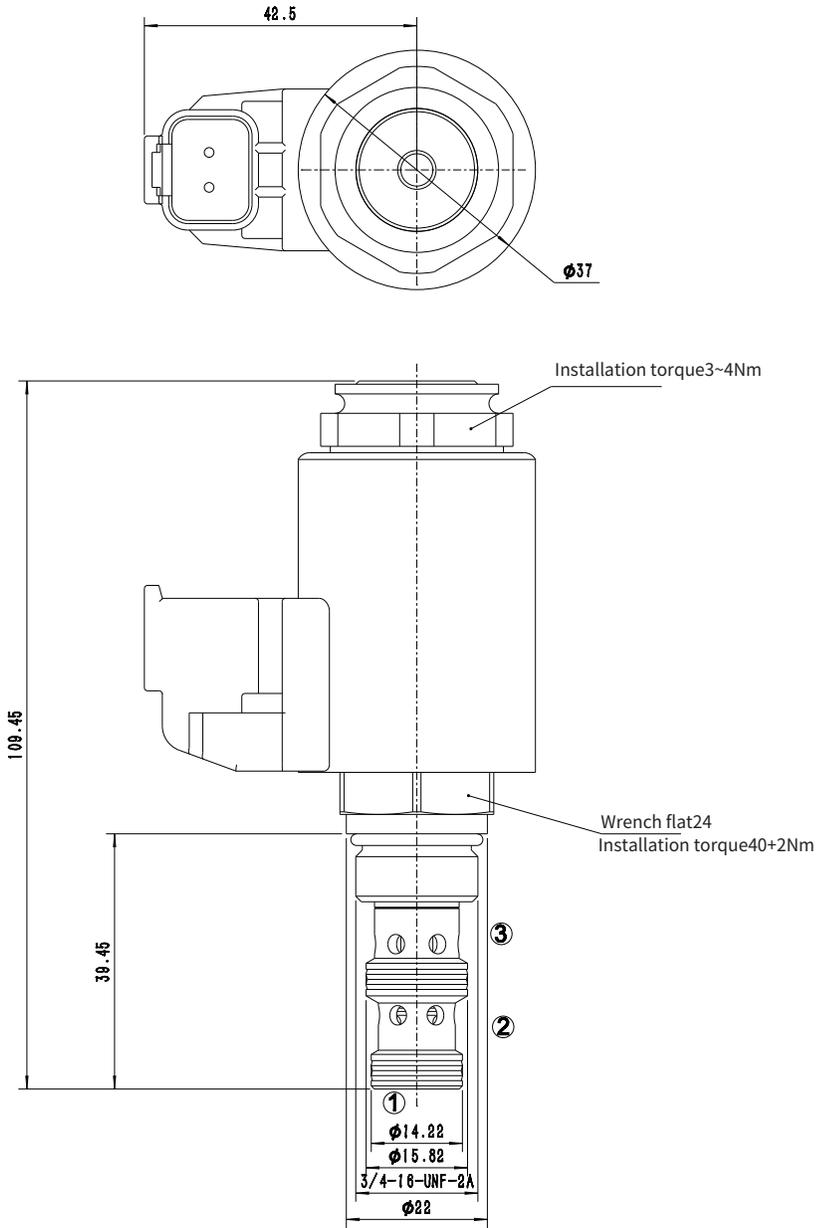
Technical Data

Rated Pressure	350bar (5076 psi)
Maximum Flow	30 L/min (7.9 gpm)
Hydraulic fluid	Hydraulic fluid to DIN 51524 power grade
Permissible rated voltage variation	DC, AC $\pm 15\%$
Fluid temperature range	-20 to 80 °C
Maximum ambient temperature	-20 to 80 °C
Duty cycle	100%
Maximum switching frequency	15000/h
Operating medium	Hydraulic fluid per DIN 51524 power class
Cavity specification	VC08-3
Viscosity range	10 to 500mm ² /s
Coil assembly	C19B
Service life (cycles)	10 ⁷
Valve tightening torque	30+2Nm (22.127+1.475lbf·in)
Plastic nut tightening torque	3+1Nm (2.213+0.738lbf·in)

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.15

SV08-3-31

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

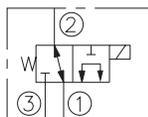
Features

- Continuous-duty rated solenoid coil
- Hardened spool and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in coils fully interchangeable
- All ports may be fully pressurized
- Emergency manual override option
- Optional IP69K waterproof E-coil
- One-piece molded coil design
- Compact construction

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Function Symbol



Description

Solenoid drive, 3-way, cartridge, high-flow, high hydraulic power transmission, with multiple manual overrides for start/stop control of available oil

Working Principle

De-energised: SV08-3-31 allows flow from port ② to port ① and blocks port ③. Energized: the spool shifts to connect port ① to port ③ and blocks port ②. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold. To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV08-3-31		-		-		-		-		-	
Model options		Standard coil voltage		Standard coil termination (VDC)							
None (blank)		0 No coil**		DS Double spade terminals							
Manual override M		10 10 VDC †		DG DIN 43650							
filter S		12 12 VDC		DL Wire(2)							
		24 24 VDC		DL/W Wire, with Weatherpak® Connector							
		36 36 VDC		DR Deutsch DT04-2P							
Valve block oil port		48 48 VDC									
Order plug-in components only 0		24 24 VAC		Standard coil termination (VAC)							
SAE 6 6T		115 115 VAC		AG DIN 43650							
1/4 Inch BSP* 2B		230 230 VAC		AP 1/2 InchWire conduit							
3/8 Inch BSP* 3B		** Includes standard coil nut and coil partition plate		E-coil Terminal (VDC)							
		† Only for DS, DW, or DL terminals.		ER Deutsch DT04-2P (IP69K rated)							
				EY Metri-Pack®150 (IP69K rated)							
				Built-in diode coil available; Please consult the factory							
Seal material		E-coil									
NBR (standard) N		10 10 VDC									
FKM V		12 12 VDC									
		20 20 VDC									
		24 24 VDC									

Materials

Cartridge:
 Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:
 Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

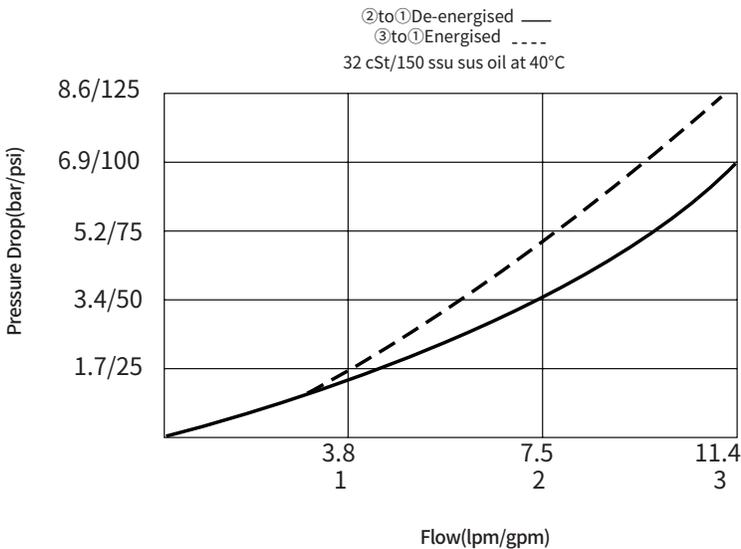
Standard coil:
 Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire; see 3.200.1.

E-type coil:
 Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector; for all new E-type coil applications see 3.400.1.

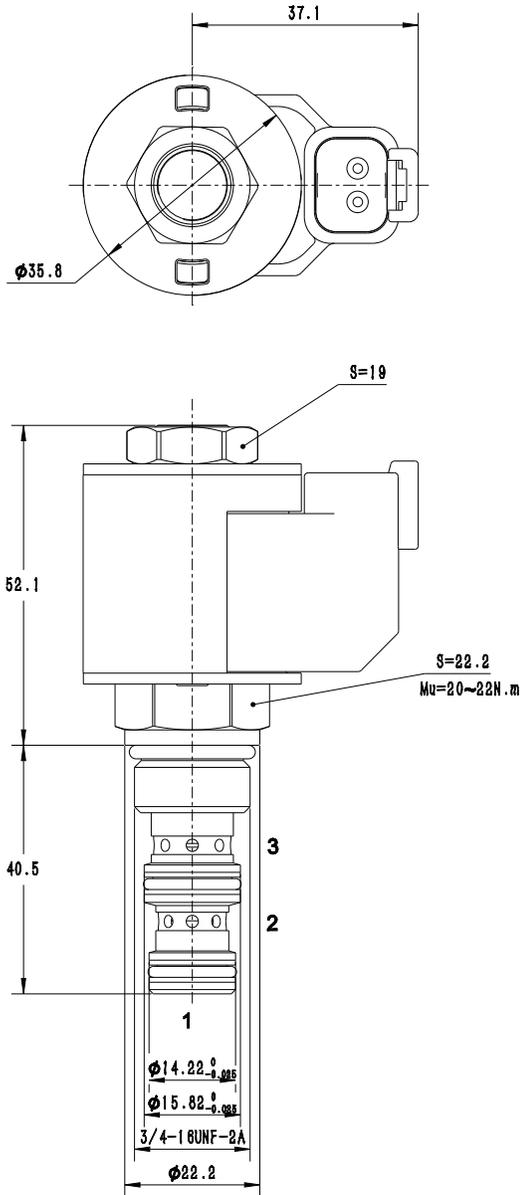
Technical Data

Rated Pressure	207 bar (3000 psi)	
Maximum Flow	11.4 L/min (8 gpm)	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC (Full-wave rectified) duration 0.13A
	E-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectified) duration 0.7A
Minimum pull-in voltage	207 bar: 85 % of nominal voltage	
Cavity detail	VC08-3 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 cst (50~2000ssu)	
Temperature range	-40 to 120 °C (Standard NBR seals)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.16

SDV08-3-31

Solenoid Directional Valve

Features

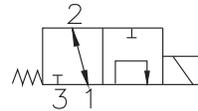
Rated Pressure (bar)	350
Max. Flow(L/min)	30 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened spool and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in coils fully interchangeable
- All ports may be fully pressurized
- Emergency manual override option
- Optional IP69K waterproof E-coil
- One-piece molded coil design
- Compact construction

Contents

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Outline Dimensions	04

Function Symbol



Description

Solenoid drive, 3-way, cartridge, high-flow, high hydraulic power transmission, with multiple manual overrides for start/stop control of available oil

Working Principle

De-energised, SDV08-3-31 directional valve connects port 2 to port 1; Energised, solenoid force overcomes spring force and connects port 3 to port 1.



Model Description

SV08-3-31		-		-		-	
Model options		Standard coil voltage		Standard coil termination (VDC)			
None (blank)		0	No coil**	DS	Double spade terminals		
Manual override	M	10	10 VDC †	DG	DIN 43650		
filter	S	12	12 VDC	DL	Wire(2)		
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector		
Valve block oil port		36	36 VDC	DR	Deutsch DT04-2P		
Order plug-in components only	0	48	48 VDC				
SAE 6	6T	24	24 VAC				
1/4 Inch BSP*	2B	115	115 VAC		Standard coil termination (VAC)		
3/8 Inch BSP*	3B	230	230 VAC	AG	DIN 43650		
*BSP valve block				AP	1/2 InchWire conduit		
UK-built only					E-coil Terminal (VDC)		
				ER	Deutsch DT04-2P (IP69K rated)		
				EY	Metri-Pack®150 (IP69K rated)		
Seal material			E-coil		Built-in diode coil available; Please consult the factory		
NBR (standard)	N	10	10 VDC				
FKM	V	12	12 VDC				
		20	20 VDC				
		24	24 VDC				

Materials

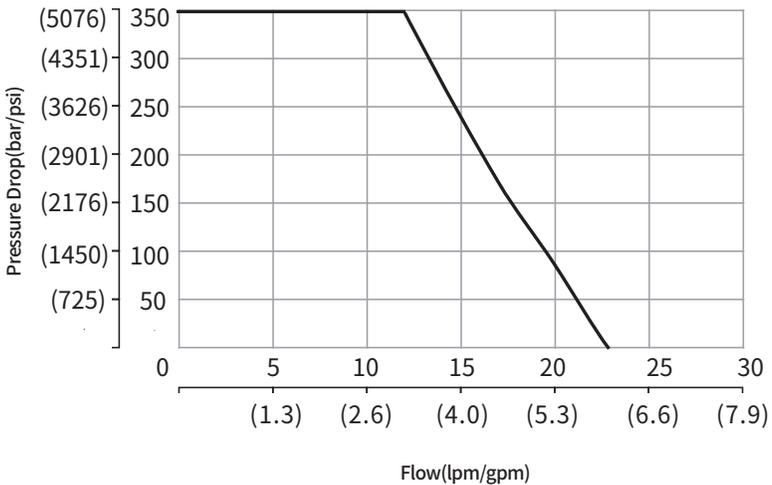
Cartridge:

Weight 0.20 kg (0.44 lb); steel, hardened working faces; zinc-plated exterior; seals: O-ring and back-up ring.

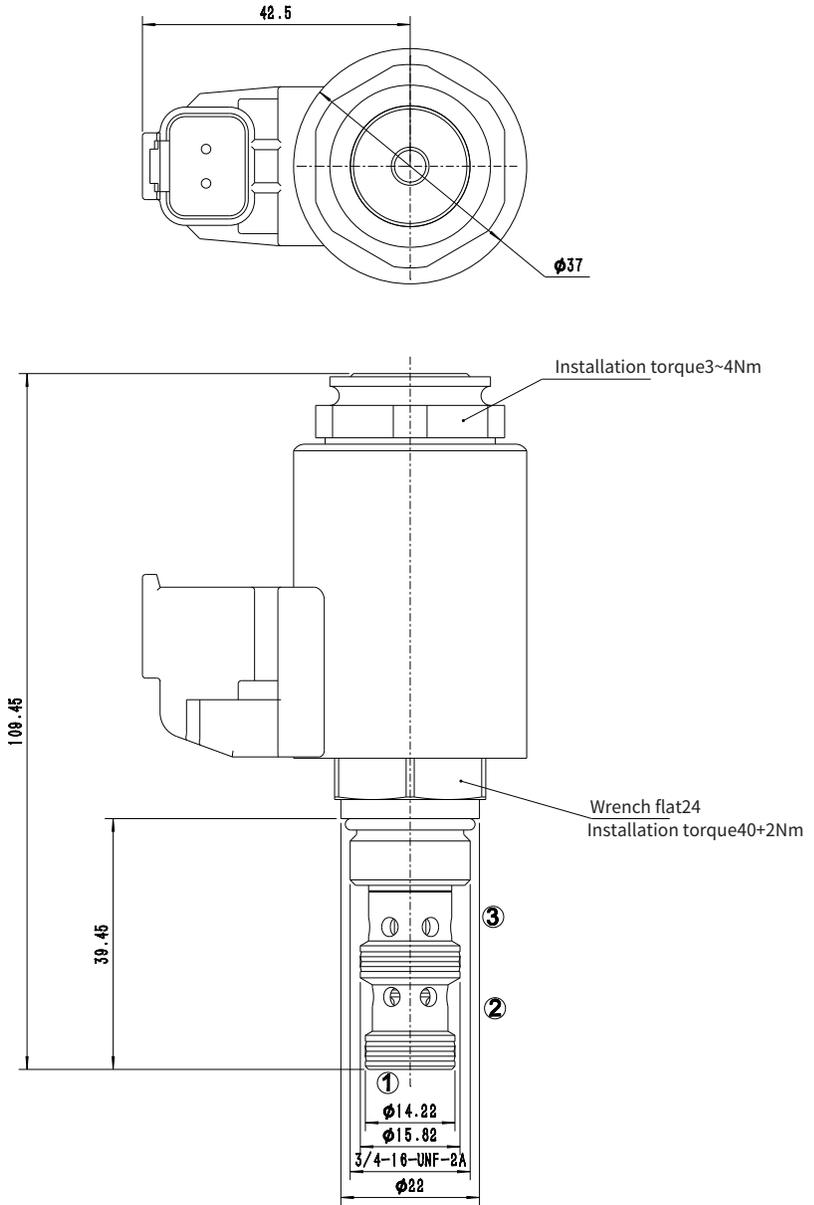
Technical Data

Rated pressure	350bar (5076 psi)
Maximum flow	30 L/min (7.9 gpm)
Maximum fluid contamination level	ISO 4406 (2006) class 21/18/15
Permissible rated voltage variation	DC, AC $\pm 15\%$
Ambient temperature range	-20 to 80 °C
Fluid temperature range	-20 to 80 °C
Duty cycle	100%
Maximum switching frequency	15000/h
Operating medium	Hydraulic fluid to DIN 51524 power class
Cavity specification	VC08-3
Viscosity range	10 to 500mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.17

SV08-3-33

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

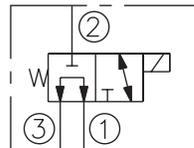
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid drive, 3-way, cartridge, high-flow, high hydraulic power transmission, with multiple manual overrides for start/stop control of available oil

Working Principle

De-energised: SV08-3-33 permits flow ③ → ① and blocks port ②.

Energised: the cartridge poppet shifts to open flow ② → ① while blocking port ③.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV08-3-33		-		-		-		-		-		-	
Model options		None (blank)		Standard coil voltage		Standard coil termination (VDC)							
Manual override		M		0 No coil**		DS Double spade terminals							
				10 10 VDC †		DG DIN 43650							
				12 12 VDC		DL Wire (2)							
				24 24 VDC		DL/W Wire, with Weatherpak® Connector							
				36 36 VDC		DR Deutsch DT04-2P							
				48 48 VDC									
Valve block oil port				24 24 VAC		Standard coil termination (VAC)							
Order plug-in components only		0		115 115 VAC		AG DIN 43650							
SAE 6		6T		230 230 VAC		AP 1/2 InchWire conduit							
1/4 Inch BSP*		2B				E-coil Terminal (VDC)							
3/8 Inch BSP*		3B				ER Deutsch DT04-2P (IP69K rated)							
						EY Metri-Pack® 150 (IP69K rated)							
						Built-in diode coil available; Please consult the factory							
Seal material				E-coil									
NBR (standard)		N		10 10 VDC									
FKM		V		12 12 VDC									
PU		P		20 20 VDC									
				24 24 VDC									

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

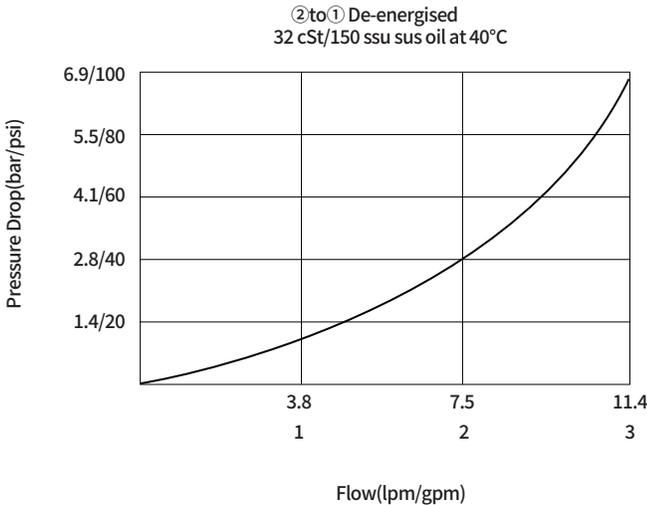
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

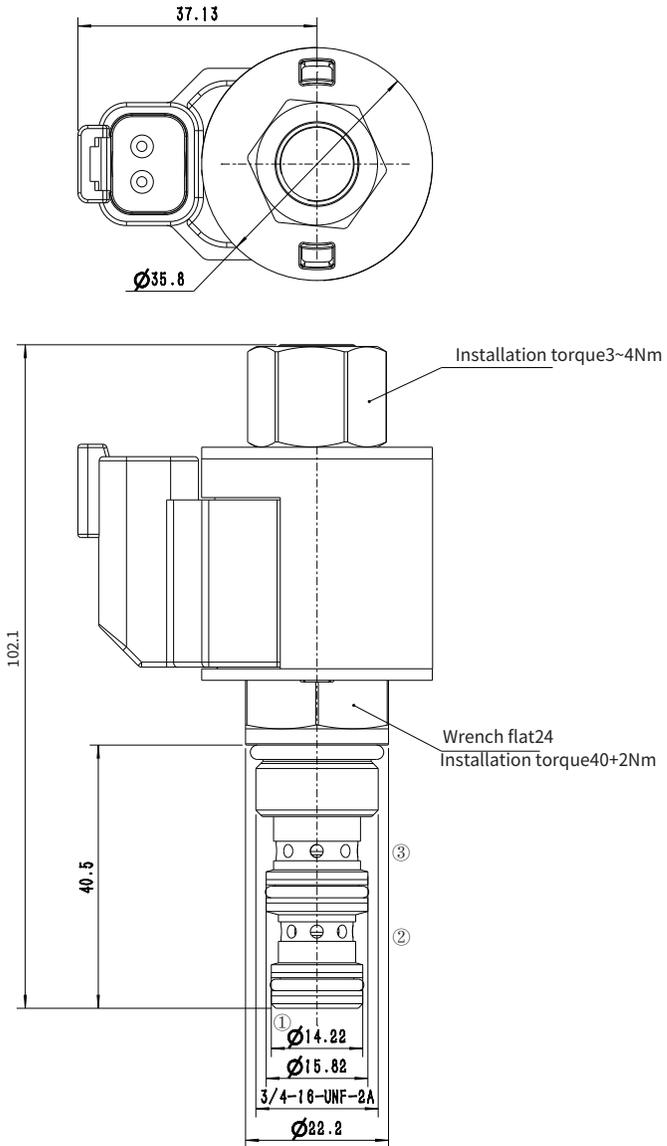
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min (2.5gpm)	
Internal leakage	At 207 bar , ≤82 mL/min .	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration1.4A; 24VDCduration0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-3 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C (Polyurethane seal)	
	40 to100°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.18

SV08-3-35

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

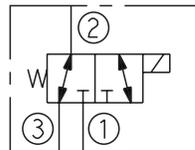
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid drive, 2-position, 3-way, direct-acting poppet, hydraulic screw-in cartridge valve

Working Principle

De-energised: SV08-3-35 permits flow ② → ③ and blocks port ①;
Energised: the poppet shifts to direct flow ② → ① while blocking port ③.



Model Description

SV08-3-35		-		-		-		-		-	
Model options		Standard coil voltage		Standard coil termination (VDC)							
None (blank)		0 No coil**		DS Double spade terminals							
Manual override	M	10 10 VDC †		DG DIN 43650							
filter	S	12 12 VDC		DL Wire(2)							
		24 24 VDC		DL/W Wire, with Weatherpak® Connector							
		36 36 VDC		DR Deutsch DT04-2P							
		48 48 VDC									
Valve block oil port		24 24 VAC		Standard coil termination (VAC)							
Order plug-in components only	0	115 115 VAC		AG DIN 43650							
SAE 6	6T	230 230 VAC		AP 1/2 InchWire conduit							
1/4 Inch	BSP*	** Includes standard coil nut and coil partition plate		E-coil Terminal (VDC)							
3/8 Inch	BSP*	† Only for DS, DW, or DL terminals.		ER Deutsch DT04-2P (IP69K rated)							
				EY Metri-Pack®150 (IP69K rated)							
				Built-in diode coil available; Please consult the factory							
Seal material		E-coil									
NBR (standard)	N	10 10 VDC									
FKM	V	12 12 VDC									
		20 20 VDC									
		24 24 VDC									

Materials

Cartridge:

Weight: 0.09 kg (0.20lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-rings and back-up rings (standard)

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire;

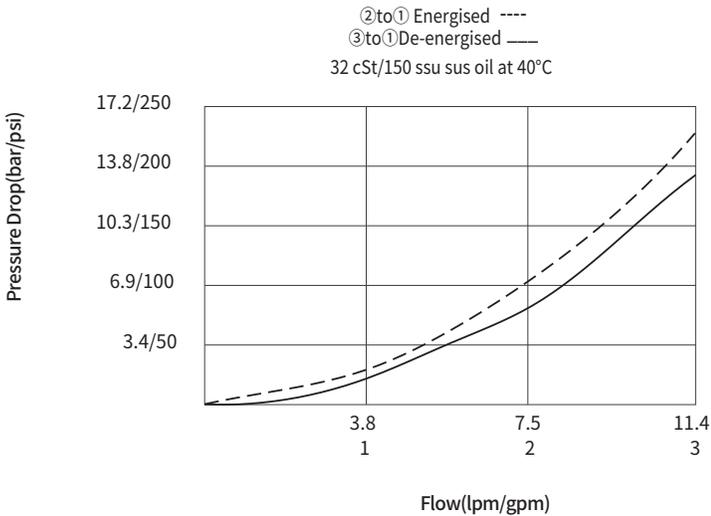
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

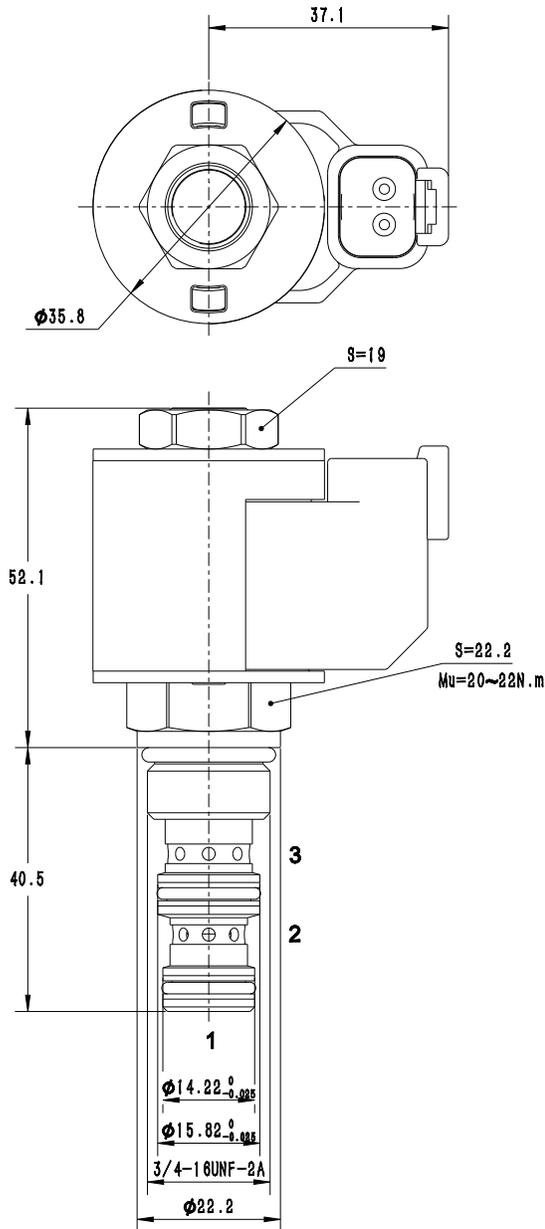
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4~420 cSt (50~2000 ssu)	
Temperature range	-40 to 120°C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.19

SDV08-4-40

Solenoid Directional Valve

Rated Pressure (bar)	350
Max. Flow(L/min)	11.4 (see performance curve)

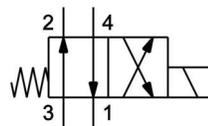
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof “E” coil
- One-piece molded coil design
- Industry-common cavity

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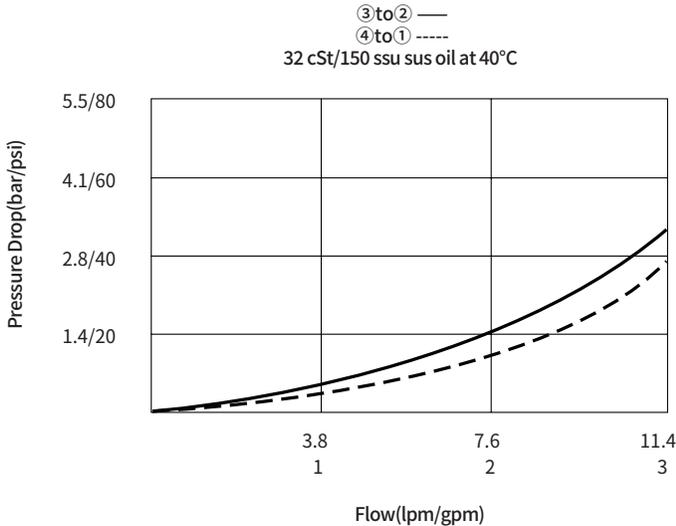
Function Symbol



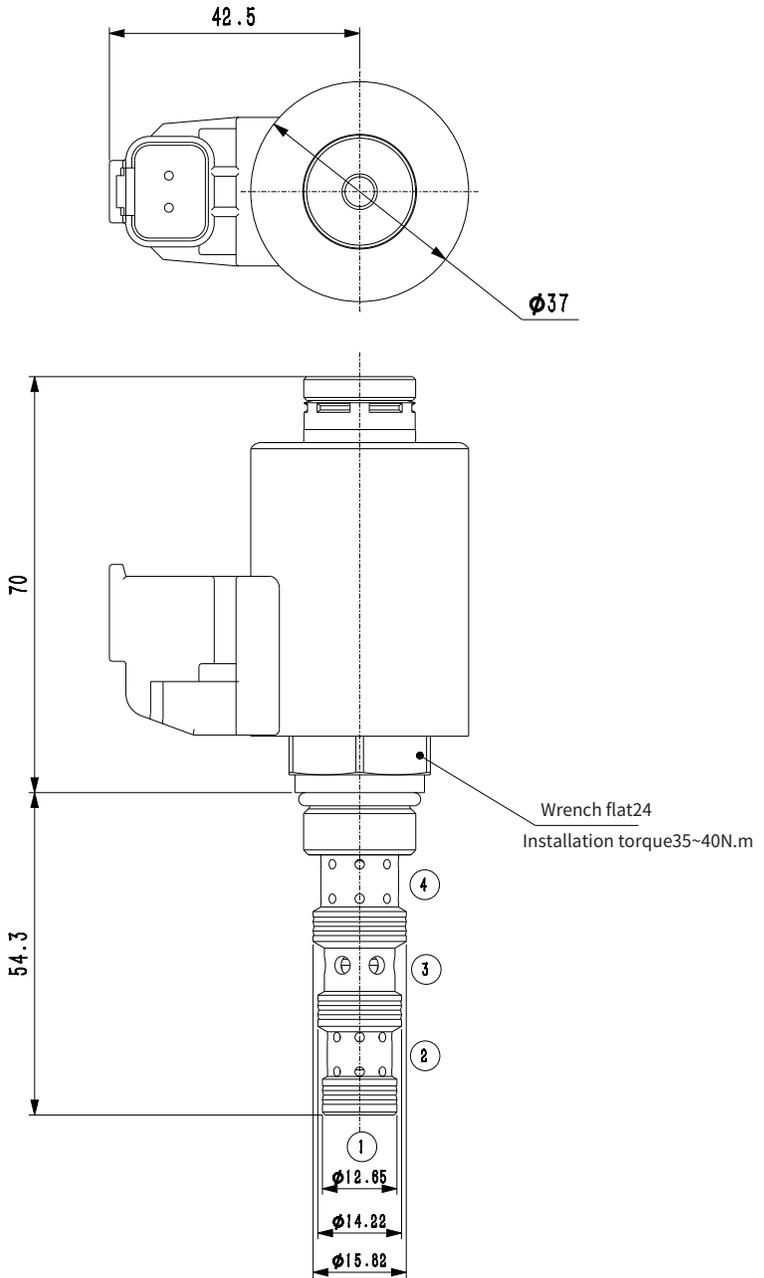
Technical Data

Rated Pressure	350bar (5000psi)	
Maximum Flow	11.4L/min (3 gpm)	
Internal leakage	≤82ml/min (5cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	D-coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.20

SV08-4-40R

Solenoid Directional Valve

Rated Pressure (bar)	210
Max. Flow(L/min)	11.4 (see performance curve)

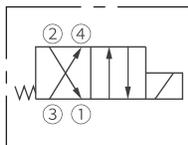
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: SV08-4-40 permits flow ② → ① and ③ → ④;
Energised: poppet shifts to open flow ③ → ② and ④ → ①.



Model Description

SV08-4-40R		Standard coil voltage		Standard coil termination (VDC)	
Model options		0 No coil**	DS Double spade terminals		
None (blank)		10 10 VDC †	DG DIN 43650		
Manual override M		12 12 VDC	DL Wire (2)		
		24 24 VDC	DL/W Wire, with Weatherpak® Connector		
		36 36 VDC			
Valve block oil port		48 48 VDC			
Order plug-in components only 0		24 24 VAC			
SAE 6 6T		115 115 VAC		Standard coil termination (VAC)	
1/4 Inch BSP* 2B		230 230 VAC		AG DIN 43650	
3/8 Inch BSP* 3B		** Includes standard coil nut and coil partition plate		AP 1/2 Inch Wire conduit	
		† Only for DS, DW, or DL terminals.		E-coil Terminal (VDC)	
Seal material				ER Deutsch DT04-2P (IP69K rated)	
NBR (standard) N		E-coil		EY Metri-Pack® 150 (IP69K rated)	
FKM V		10 10 VDC			
PU P		12 12 VDC			
		20 20 VDC			
		24 24 VDC			
					Built-in diode coil available; Please consult the factory

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

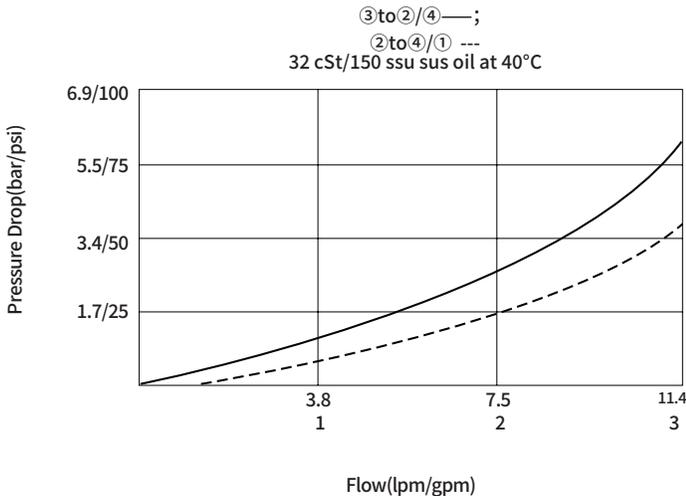
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

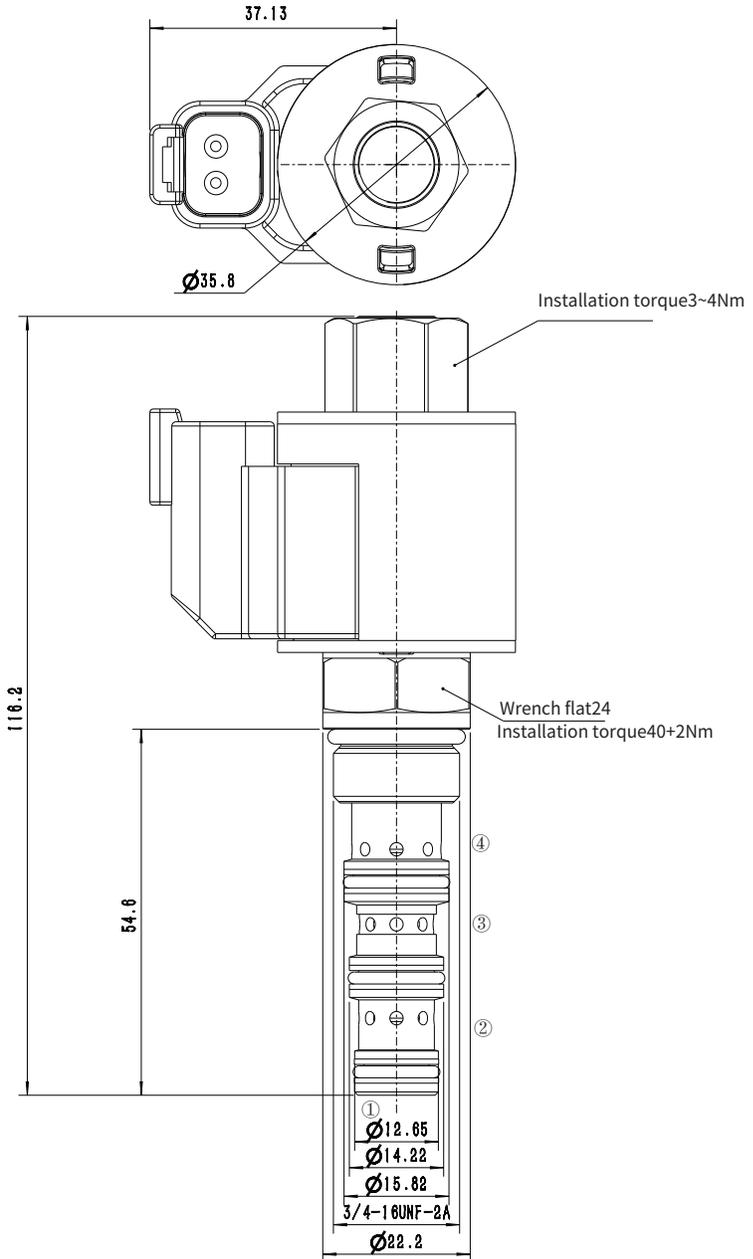
Technical Data

Rated Pressure	207bar (3000psi)		
Maximum Flow	11.4L/min (2.5 gpm)		
Internal leakage	≤82ml/min@207bar		
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage		
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A	
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A	
Minimum pull-in voltage	207bar: 85 % of nominal voltage		
Cavity detail	VC08-2 (See the technical reference materials for details)		
Working medium	Mineral oil or lubricating synthetic oil		
Viscosity range	7.4 to 420 mm ² /s		
Temperature range	-54 to 107°C (Polyurethane seal)		
	-40 to 100°C (NBR seal)		
	-26 to 204°C (FKM seal)		
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11		

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.21

SV08-4-40

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

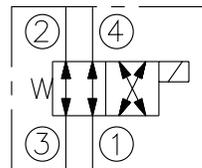
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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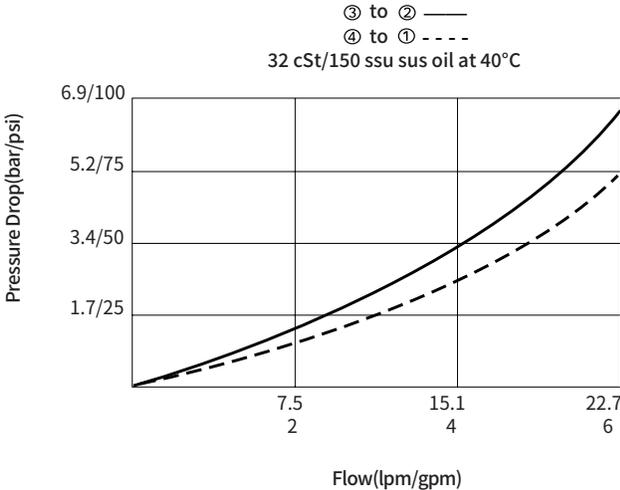
Function Symbol



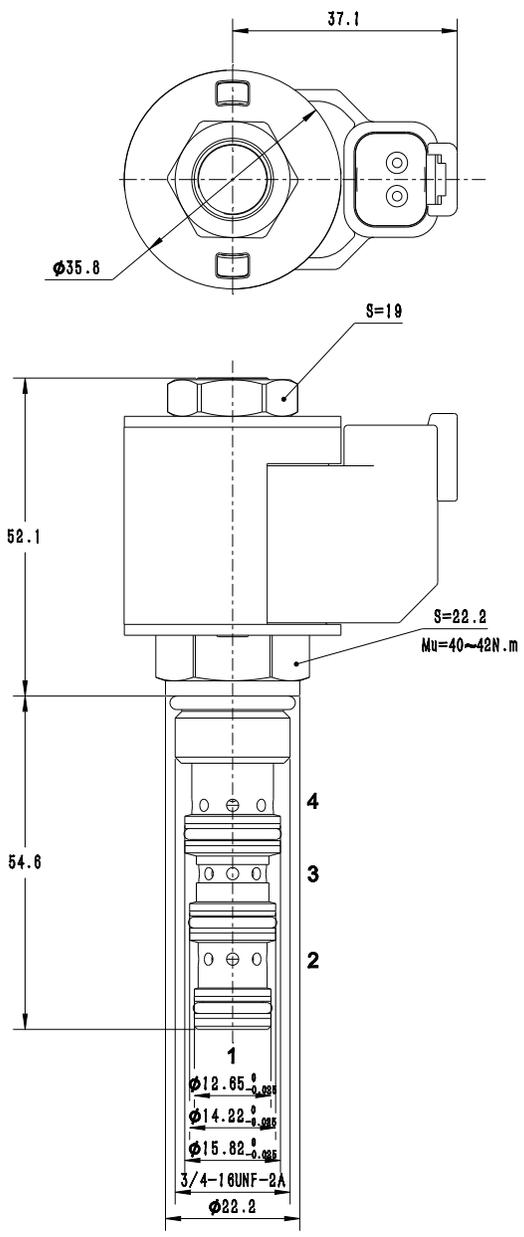
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4~420 cSt (50~2000 ssu)	
Temperature range	-40 to 120°C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.22

SV08-4-41

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	13.2 (see performance curve)

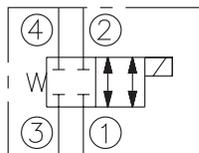
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: SV08-4-42 permits flow ③ → ④ and ② → ①; Energised: poppet shifts to open flow ③ → ④ and ② → ①. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift. For full emergency shift pull the button to its maximum travel and hold. To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SDV08-4-41		Standard coil voltage		Standard coil termination (VDC)	
Model options		0 No coil **	DS Double spade terminals		
None (blank)		10 10 VDC †	DG DIN 43650		
Manual override	M	12 12 VDC	DL Wire (2)		
		24 24 VDC	DL/W Wire, with Weatherpak® Connector		
		36 36 VDC			
		48 48 VDC			
Valve block oil port		24 24 VAC			
Order plug-in components only	0	115 115 VAC			Standard coil termination (VAC)
SAE 6	6T	230 230 VAC			AG DIN 43650
1/4 Inch BSP*	2B				AP 1/2 Inch Wire conduit
3/8 Inch BSP*	3B				
					E-coil Terminal (VDC)
					ER Deutch DT04-2P (IP69K rated)
					EY Metri-Pack® 150 (IP69K rated)
					Built-in diode coil available; Please consult the factory
Seal material		E-coil			
NBR (standard)	N	10 10 VDC			
FKM	V	12 12 VDC			
PU	P	20 20 VDC			
		24 24 VDC			

** Includes standard coil nut and coil partition plate

† Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

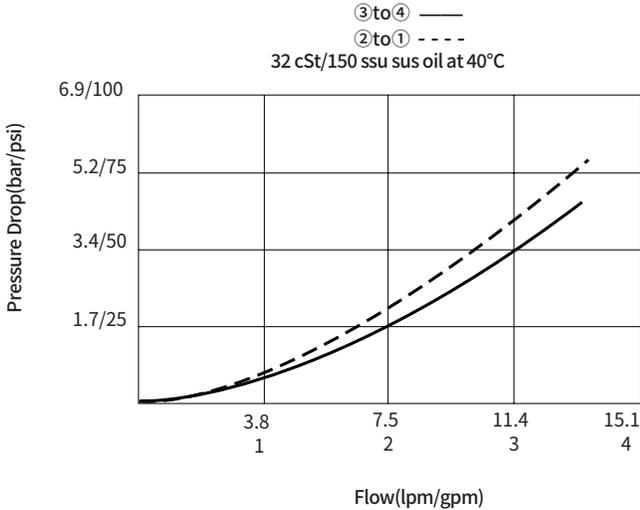
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

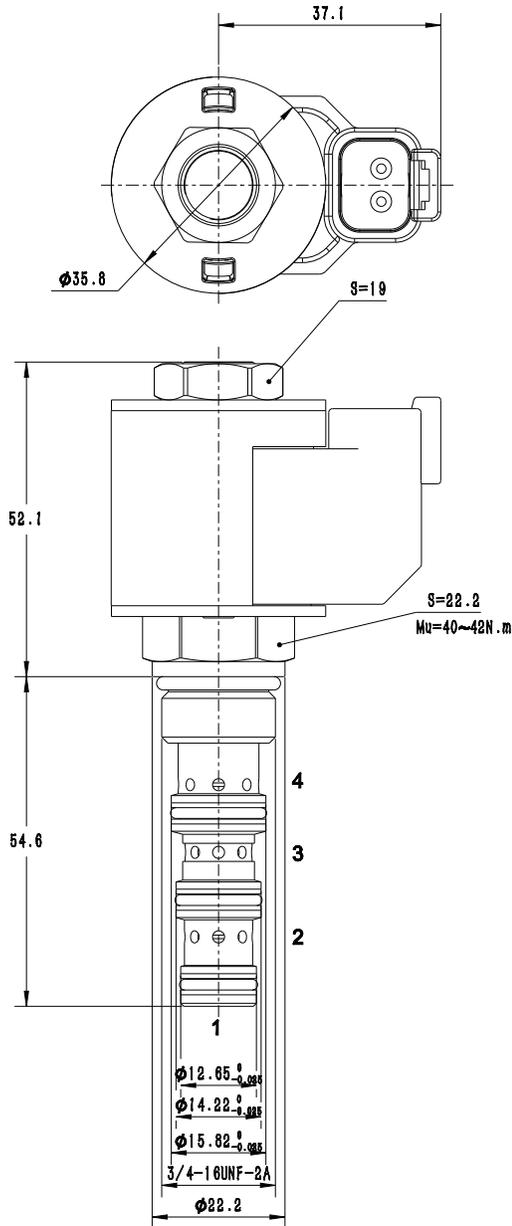
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	13.2L/min	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4~420 cSt (50~2000 ssu)	
Temperature range	-40 to 120°C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.23

SV08-4-42

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

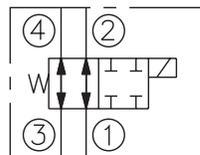
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: SV08-4-42 permits flow ③ → ④ and ② → ①; Energised: poppet shifts to block flow at all ports.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out.

In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV08-4-42		Standard coil voltage		Standard coil termination (VDC)	
Model options	None (blank)	0	No coil**	DS	Double spade terminals
Manual override	M	10	10 VDC †	DG	DIN 43650
		12	12 VDC	DL	Wire (2)
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector
		36	36 VDC	DR	Deutsch DT04-2P
		48	48 VDC		
Valve block oil port		24	24 VAC		
Order plug-in components only	0	115	115 VAC		Standard coil termination (VAC)
SAE 6	6T	230	230 VAC	AG	DIN 43650
1/4 Inch	BSP*			AP	1/2 InchWire conduit
3/8 Inch	BSP*				
					E-coil Terminal (VDC)
				ER	Deutsch DT04-2P (IP69K rated)
				EY	Metri-Pack®150 (IP69K rated)
					Built-in diode coil available; Please consult the factory
Seal material		E-coil			
NBR (standard)	N	10	10 VDC		
FKM	V	12	12 VDC		
PU	P	20	20 VDC		
		24	24 VDC		

**Includes standard coil nut and coil partition plate

† Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

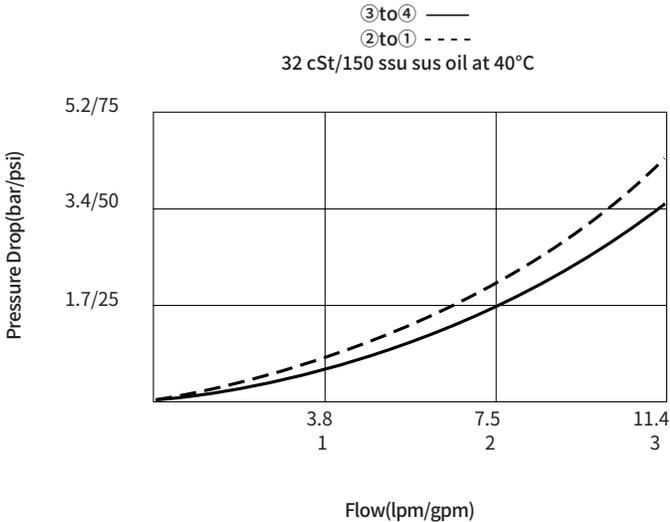
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

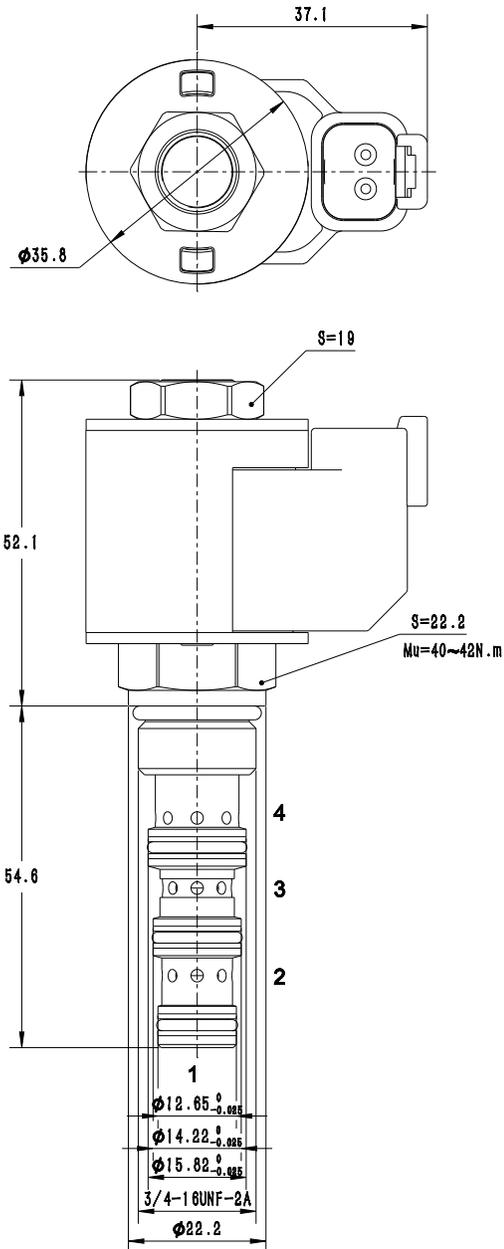
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4~420 cSt (50~2000 ssu)	
Temperature range	-40 to 120°C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.24

SV08-4-43

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

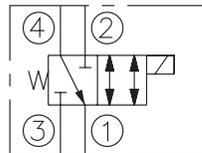
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Industry-common cavity

Contents

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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

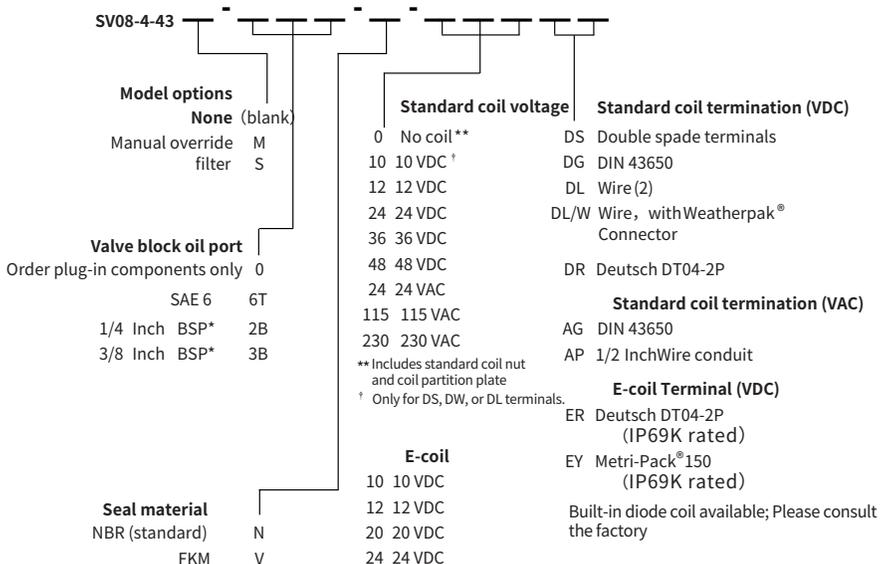
De-energised: SV08-4-43 permits flow ④ → ① and blocks ports ③ and ②;

Energised: poppet shifts to allow flow ③ → ④ and ② → ①.

Note: although port ① can be fully pressurised, it is not to be used as the valve inlet.



Model Description



Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

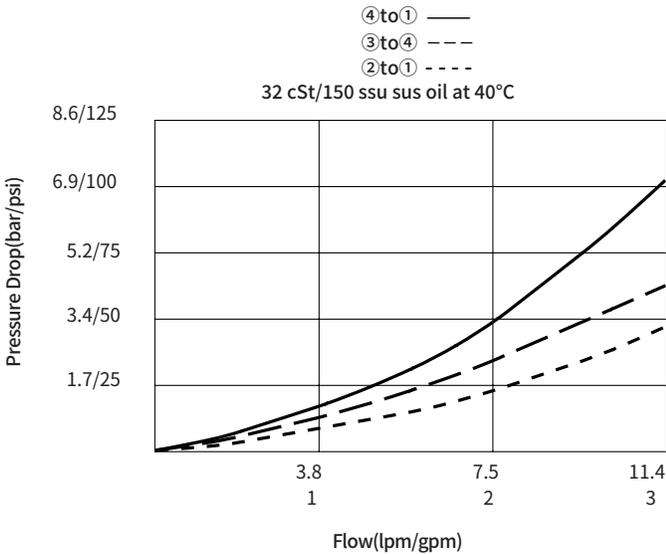
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

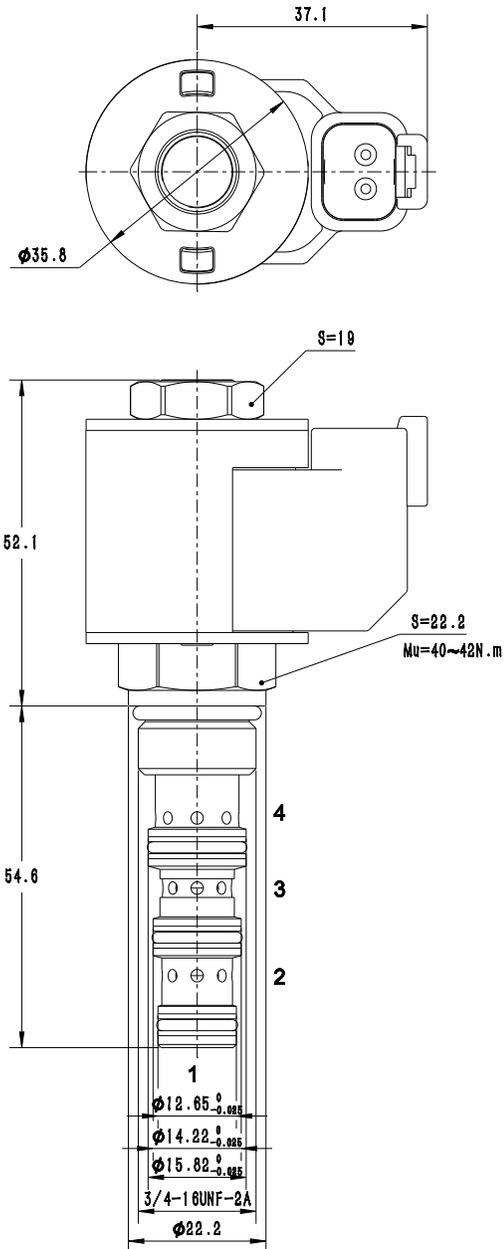
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4~420 cSt (50~2000 ssu)	
Temperature range	-40 to 120°C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.25

SV08-4-44

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

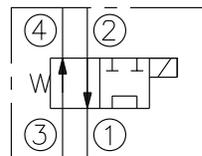
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Optional IP69K waterproof Type E coil

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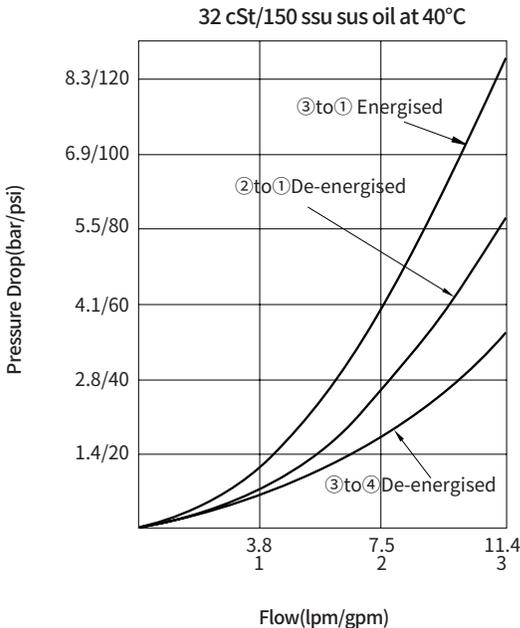
Function Symbol

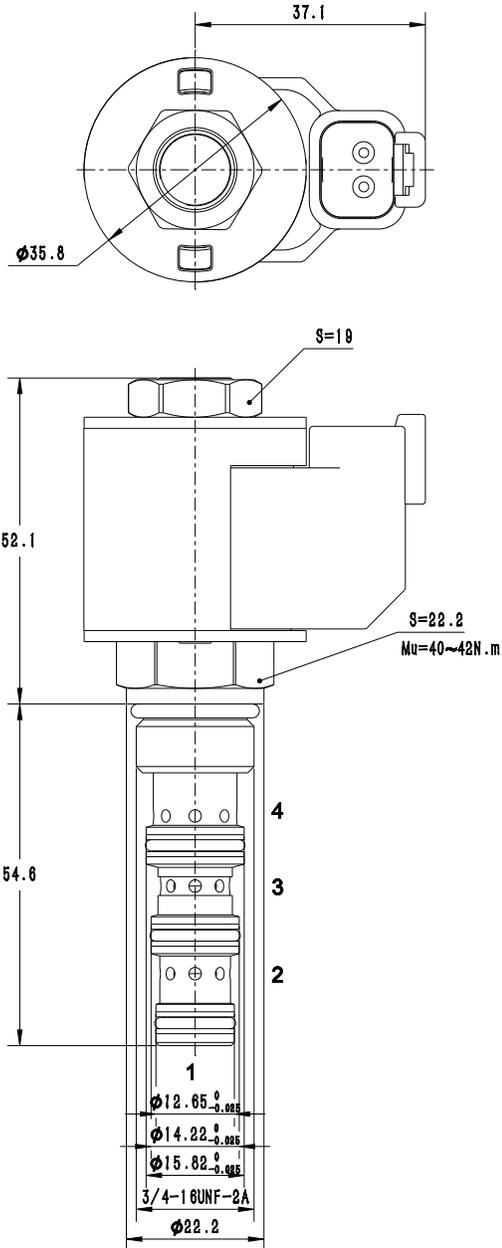


Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min	
Internal leakage	At 207 bar (3,000 psi), maximum 82 mL/min (5 in ³ /min).	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4~420 cSt (50~2000 ssu)	
Temperature range	-40 to 120°C (Polyurethane seal)	

Performance Curve (insert type only)







SOLINER

2.26

SV08-4-45

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

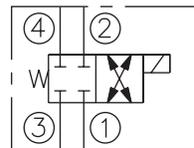
Features

- Rated solenoid for continuous duty
- Plug-in coils voltage-interchangeable
- Optional IP69K waterproof Type-E coil
- High-efficiency wet-armature construction
- Industry-common cavity
- Hardened components for greater durability

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in directional cartridge valve.

Working Principle

Energised: the poppet shifts to allow flow ③ → ② and ④ → ①.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV08-4-45		-		-		-		-		-		-	
Model options		None (blank)		Standard coil voltage		Standard coil termination (VDC)							
Manual override	M	0	No coil**	DS	Double spade terminals								
		10	10 VDC †	DG	DIN 43650								
		12	12 VDC	DL	Wire (2)								
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector								
		36	36 VDC	DR	Deutsch DT04-2P								
		48	48 VDC										
		24	24 VAC										
		115	115 VAC	Standard coil termination (VAC)									
		230	230 VAC	AG	DIN 43650								
		**Includes standard coil nut and coil partition plate		AP	1/2 InchWire conduit								
		† Only for DS, DW, or DL terminals.		E-coil Terminal (VDC)									
		E-coil		ER	Deutsch DT04-2P (IP69K rated)								
		10	10 VDC	EY	Metri-Pack®150 (IP69K rated)								
		12	12 VDC	Built-in diode coil available; Please consult the factory									
		20	20 VDC										
		24	24 VDC										
Valve block oil port													
Order plug-in components only	0												
SAE 6	6T												
1/4 Inch BSP*	2B												
3/8 Inch BSP*	3B												
*BSP valve block													
UK-built only													
Seal material													
NBR (standard)	N												
FKM	V												
PU	P												

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

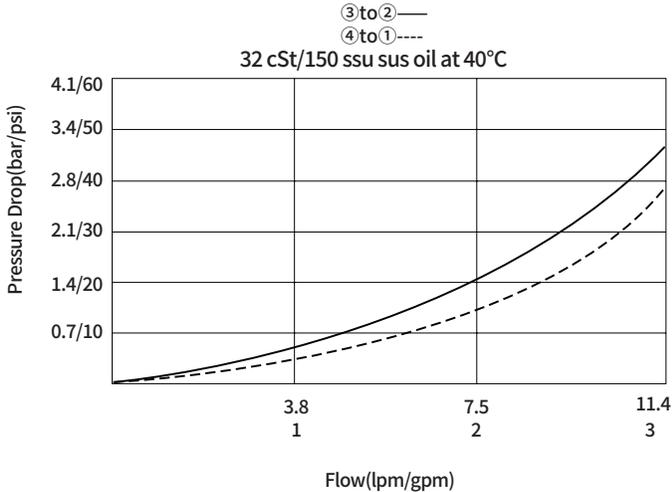
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

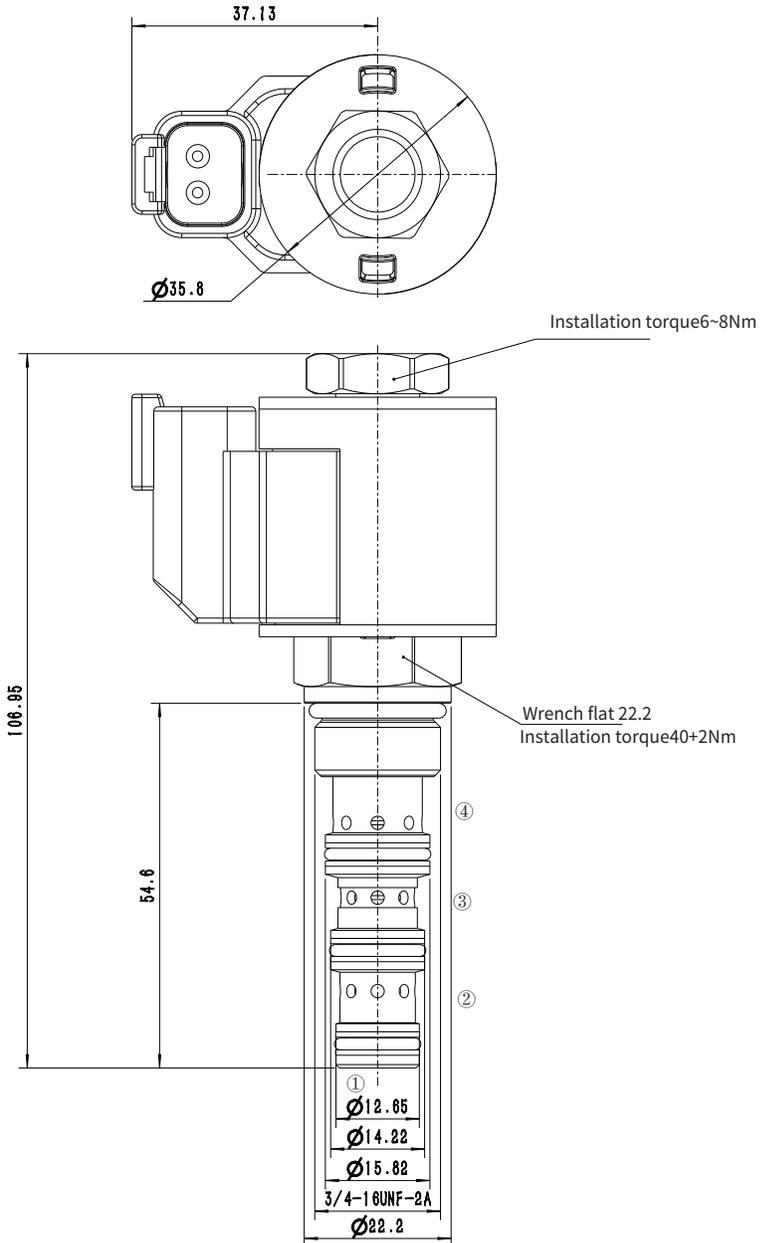
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min (2.5 gpm)	
Internal leakage	≤82ml/min@207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.27

SV08-4-46

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

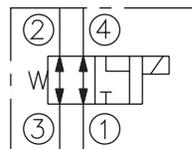
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in directional cartridge valve.

Working Principle

De-energised: SV08-46 permits flow ① → ④ and ③ → ②.

Energised: poppet shifts to allow flow between ②, ① and ④ while blocking port ③.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV08-4-46					
Model options		Standard coil voltage		Standard coil termination (VDC)	
None (blank)		0 No coil**		DS Double spade terminals	
Manual override M		10 10 VDC †		DG DIN 43650	
		12 12 VDC		DL Wire (2)	
		24 24 VDC		DL/W Wire, with Weatherpak® Connector	
		36 36 VDC		DR Deutsch DT04-2P	
		48 48 VDC			
Valve block oil port		24 24 VAC		Standard coil termination (VAC)	
Order plug-in components only 0		115 115 VAC		AG DIN 43650	
SAE 6 6T		230 230 VAC		AP 1/2 Inch Wire conduit	
1/4 Inch BSP* 2B		** Includes standard coil nut and coil partition plate		E-coil Terminal (VDC)	
3/8 Inch BSP* 3B		† Only for DS, DW, or DL terminals.		ER Deutsch DT04-2P (IP69K rated)	
*BSP valve block				EY Metri-Pack® 150 (IP69K rated)	
UK-built only				Built-in diode coil available; Please consult the factory	
		E-coil			
		10 10 VDC			
		12 12 VDC			
Seal material		20 20 VDC			
NBR (standard) N		24 24 VDC			
FKM V					
PU P					

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

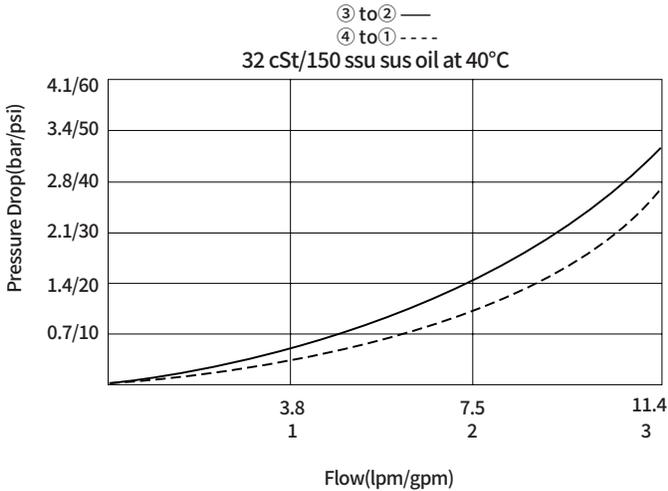
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

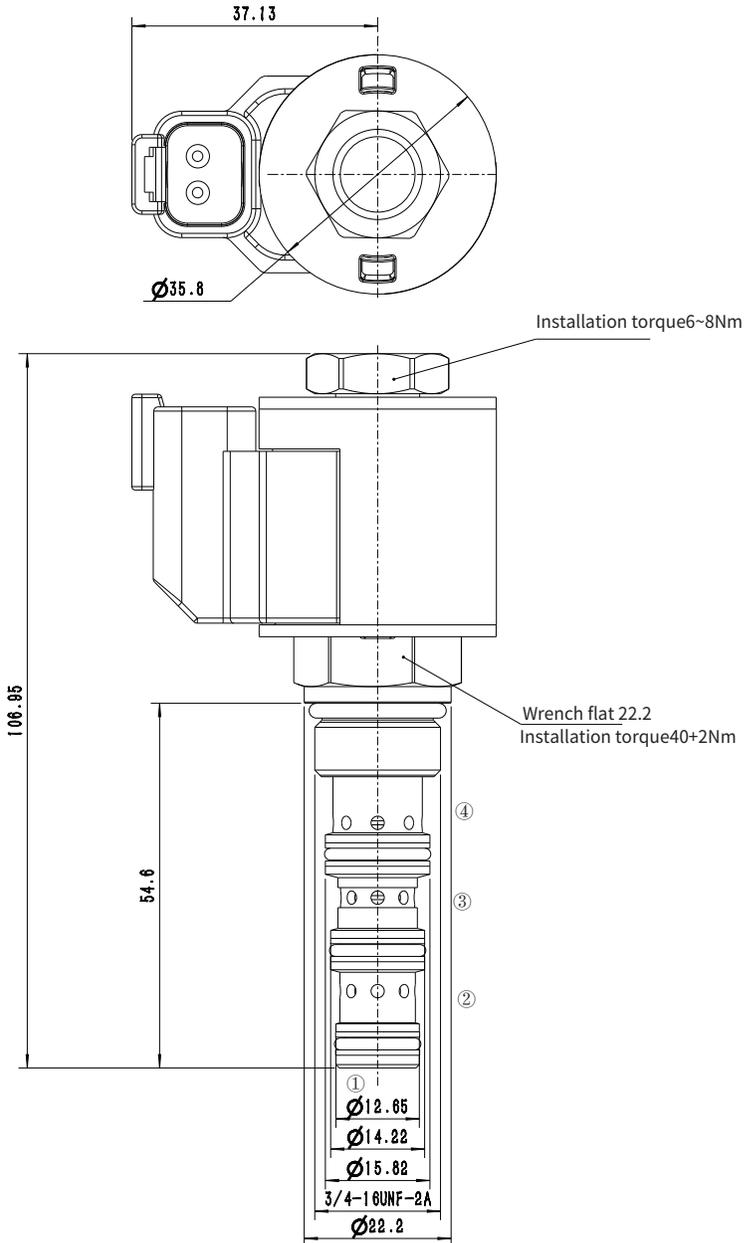
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min (2.5 gpm)	
Internal leakage	≤82ml/min@207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.28

SV08-4-47A

Solenoid Directional Valve

Features

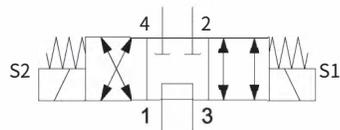
Rated Pressure (bar)	210
Max. Flow(L/min)	11.4 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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Function Symbol



Description

Solenoid drive, 3-position, 4-way, direct-acting poppet, tandem-centre, hydraulic screw-in cartridge valve.

Working Principle

De-energised: SV08-4-47A blocks cylinder ports and allows flow ③ → ①.

Coil 1 energised: flow ③ → ②.

Coil 2 energised: flow ③ → ④ and ② → ①.

In circuits with unequal actuator-port flows due to cylinder area ratio, connect the higher return flow to port ②.

Although port ① can be fully pressurised, it is not to be used as the valve inlet.

Emergency manual override operation: push the knurled handle to exercise coil 1 (S1) function; pull the handle to exercise coil 2 (S2) function.



Model Description

SV08-4-47A		Standard coil voltage	Standard coil termination (VDC)
Model options			
None (blank)		0 No coil**	DS Double spade terminals
Manual override	M	10 10 VDC †	DG DIN 43650
filter	S	12 12 VDC	DL Wire (2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
		36 36 VDC	
		48 48 VDC	DR Deutsch DT04-2P
Valve block oil port		24 24 VAC	
Order plug-in components only	0	115 115 VAC	Standard coil termination (VAC)
SAE 6	6T	230 230 VAC	AG DIN 43650
1/4 Inch BSP*	2B	** Includes standard coil nut and coil partition plate	AP 1/2 InchWire conduit
3/8 Inch BSP*	3B	† Only for DS, DW, or DL terminals.	E-coil Terminal (VDC)
*BSP valve block			ER Deutsch DT04-2P (IP69K rated)
UK-built only			EY Metri-Pack®150 (IP69K rated)
		E-coil	Built-in diode coil available; Please consult the factory
Seal material		10 10 VDC	
NBR (standard)	N	12 12 VDC	
FKM	V	20 20 VDC	
		24 24 VDC	

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

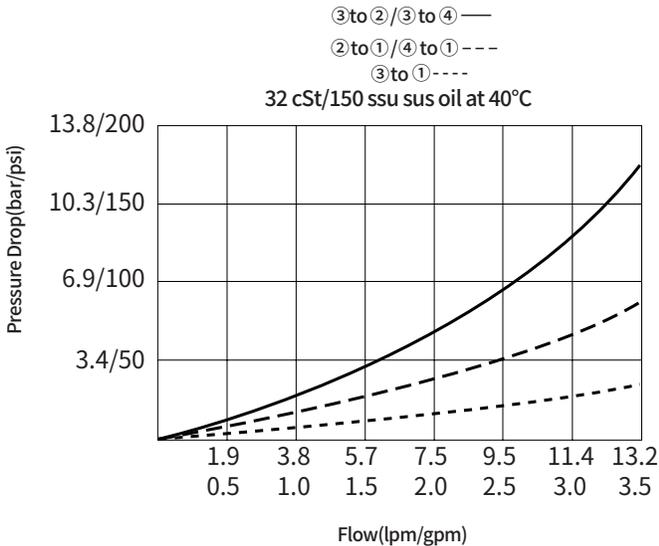
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

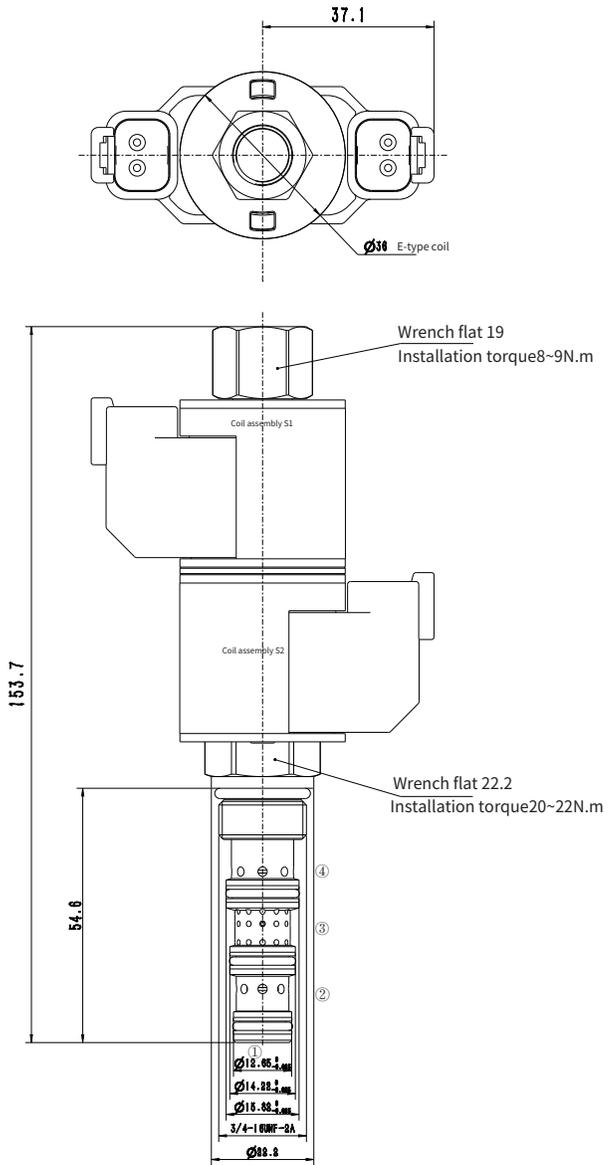
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	11.4L/min (3.0 gpm)	
Internal leakage	≤278ml/min (17cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration1.4A; 24VAC duration 0.7A
	D-type coil	12VDC duration1.67A; 24VDCduration0.83 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C (Polyurethane seal)	
	-40 to100°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.29

SV08-4-47B

Solenoid Directional Valve

Rated Pressure (bar)	210
Max. Flow(L/min)	11.4 (see performance curve)

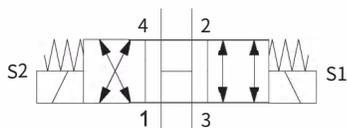
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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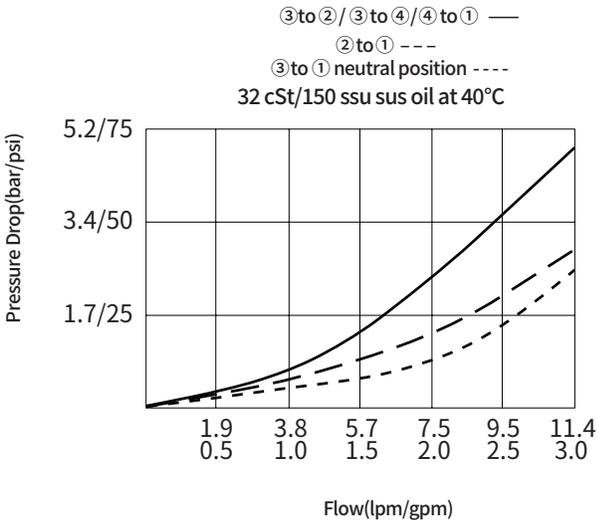
Function Symbol



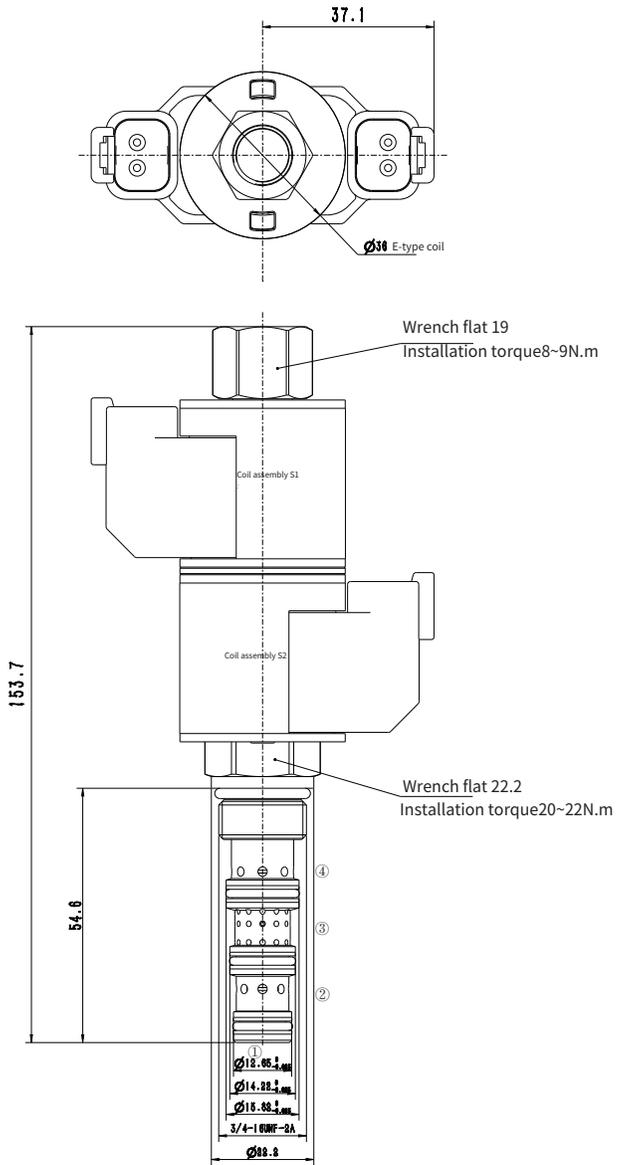
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	11.4L/min (3.0gpm)	
Internal leakage	≤328ml/min (20cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VAC duration 0.7A
	D-type coil	12VDC duration 1.67A; 24VDC duration 0.83 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.30

SV08-4-47C

Solenoid Directional Valve

Rated Pressure (bar)	210
Max. Flow(L/min)	11.4 (see performance curve)

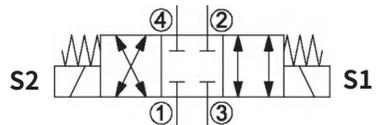
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- One-piece molded coil design
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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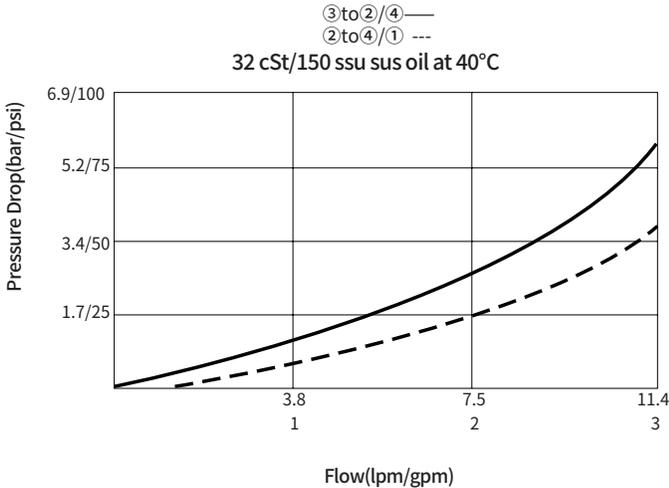
Function Symbol



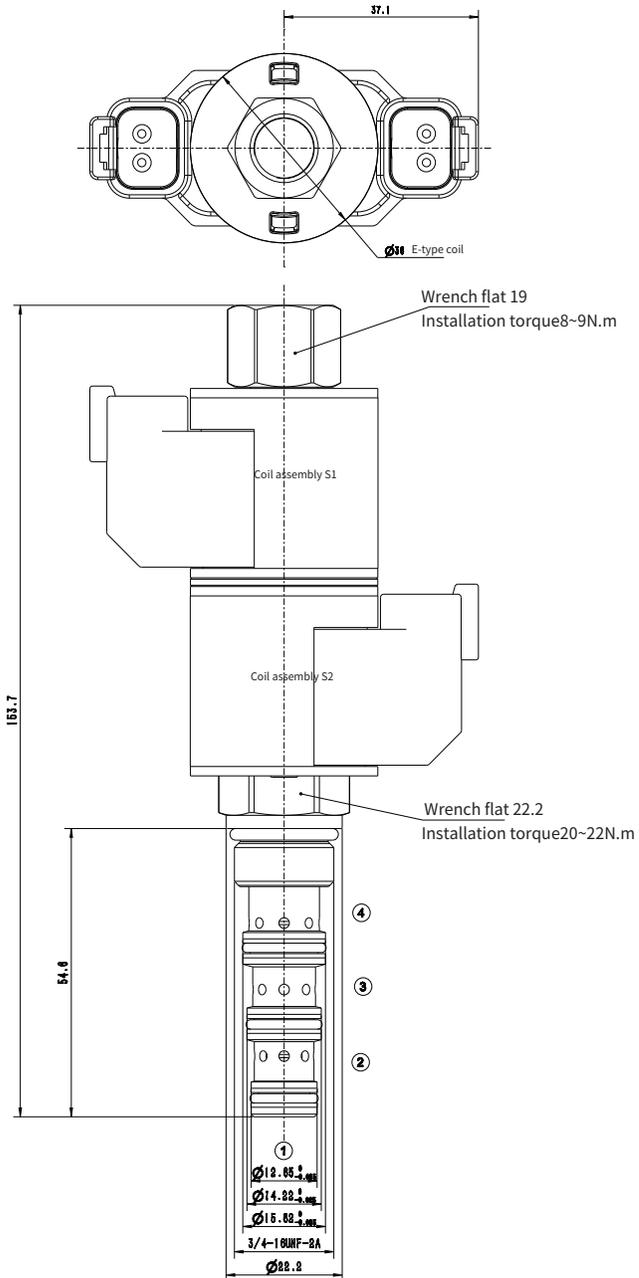
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	11.4L/min (2.5 gpm)	
Internal leakage	≤82ml/min@207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration1.4A; 24VAC duration 0.7A
	E-type coil	12VDC duration1.67A; 24VDCduration0.83 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	-40 to100°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.31

SV08-4-47D

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	11.4 (see performance curve)

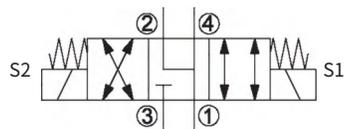
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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Function Symbol



Description

Solenoid drive, 3-position, 4-way, direct-acting poppet, tandem-centre, hydraulic screw-in cartridge valve.

Working Principle

De-energised: SV08-47D blocks flow to port ③ and allows flow ② → ① or ④ → ①. Coil 1 energised: permits flow ③ → ④ and ② → ①. Coil 2 energised: permits flow ③ → ② and ④ → ①. In circuits with unequal actuator-port flows due to cylinder area ratio, connect the higher return flow to port ②. Although port ① can be fully pressurised, it is not to be used as the valve inlet.

Emergency manual override operation: push the knurled handle to exercise coil 1 (S1) function; pull the handle to exercise coil 2 (S2) function.



Model Description

SV08-4-47D		Standard coil voltage		Standard coil termination (VDC)	
Model options					
None (blank)		0	No coil**	DS	Double spade terminals
Manual override	M	10	10 VDC †	DG	DIN 43650
		12	12 VDC	DL	Wire (2)
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector
		36	36 VDC	DR	Deutsch DT04-2P
		48	48 VDC		
Valve block oil port		24	24 VAC		
Order plug-in components only	0	115	115 VAC		Standard coil termination (VAC)
SAE 6	6T	230	230 VAC	AG	DIN 43650
1/4 Inch BSP*	2B			AP	1/2 InchWire conduit
3/8 Inch BSP*	3B				E-coil Terminal (VDC)
*BSP valve block				ER	Deutsch DT04-2P (IP69K rated)
UK-built only				EY	Metri-Pack®150 (IP69K rated)
					Built-in diode coil available; Please consult the factory
Seal material		E-coil			
NBR (standard)	N	10	10 VDC		
FKM	V	12	12 VDC		
PU	P	20	20 VDC		
		24	24 VDC		

** Includes standard coil nut and coil partition plate

† Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and back-up ring (standard).

Standard valve block:

Weight: 0.27 kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

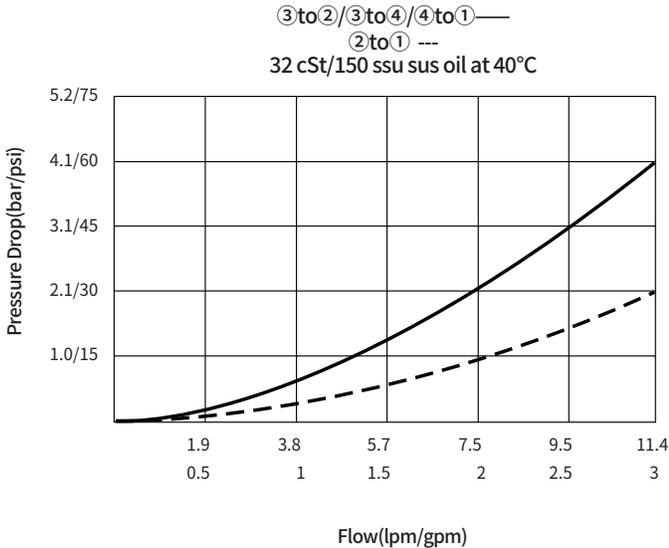
E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	11.4L/min (3.0 gpm)	
Internal leakage	≤164ml/min (10cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration1.4A; 24VAC duration 0.7A
	D-type coil	12VDC duration1.67A; 24VDC duration0.83 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	-40 to100°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)





SOLINER

2.32

SV08-6-60-PIB

Solenoid Directional Valve

Rated Pressure (bar)	250
Max. Flow(L/min)	25 (see performance curve)

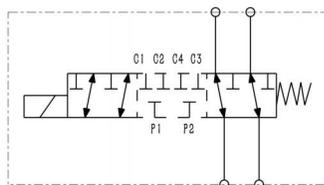
Features

- Continuous-duty rated solenoid coil
- Direct-acting solenoid operated directional control valve
- Optional coil voltages and terminations
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof coil

Contents

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Function Symbol



Description

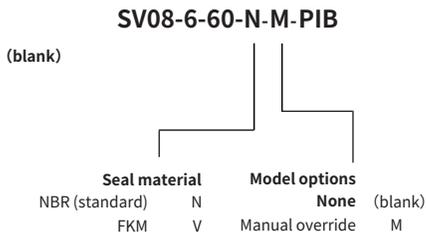
Solenoid drive, 2-position, 6-way, PIB sub-plate valve used as a selector in series/parallel or selector drive circuits.

Working Principle

De-energised: SV08-6-60-PIB permits flow between P1-C1 and P2-C3 while blocking flow between P1-C2 and P2-C4. Energised: poppet shifts to open flow between P1-C2 and P2-C4; in this position flow between P1-C1 and P2-C3 is blocked.



Model Description



Materials

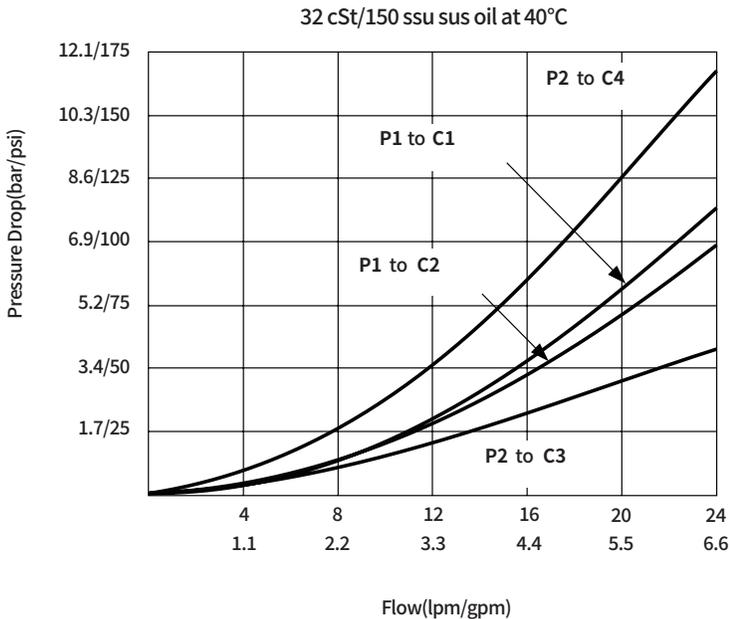
Product Info

Weight: 0.11 kg (0.242 lb); Steel, working surfaces hardened; zinc-plated exterior. NBR O-rings.

Technical Data

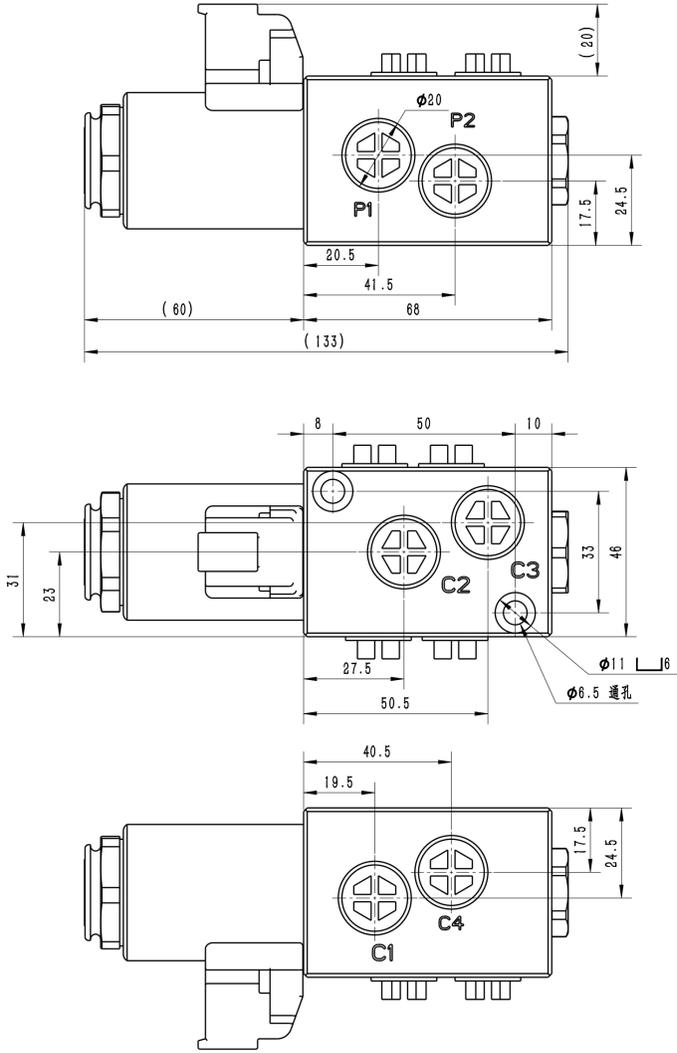
Rated Pressure	250bar (3626 psi)
Maximum Flow Rate	25L/min (6.6 gpm)
Internal Leakage	≤ 60 ml/min@ 250 bar
Coil Rated Load	Continuous operating within 85 % – 115 % of nominal voltage
Operating Voltage	DC14V ± 15%, 20W
Coil	Built-in bidirectional freewheeling diode, IP67 waterproof rating
Mounting Hole Specification	Refer to outline drawing
Working Medium	Mineral oil or synthetic oil with lubricating properties
Viscosity Range	20 to 420 mm ² /s
Temperature Range	-40 to 120 °C (Standard NBR seal)

Performance Curve (insert type only)



Outline Dimensions

Port sizes: P1, P2, C1, C2, C3, C4: G1/4 ED seal





SOLINER

2.33

SV08-2-B20

Solenoid Directional Valve

Rated Pressure (bar)	210
Max. Flow(L/min)	30.2 (see performance curve)

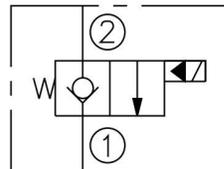
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

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Function Symbol



Description

Solenoid drive, 2-way, normally-closed, direct-acting poppet, hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: SV08-2-B22 acts as a check valve, allowing flow ① → ② while blocking ② → ①. Energised: poppet lifts to open flow ② → ①; in this mode bidirectional flow is permitted.



Model Description

SV08-2-B20		-		-		-		-		-		-		-	
Model options		None (blank)		Standard coil voltage		Standard coil termination (VDC)									
Manual override filter		M S		0 No coil**		DS Double spade terminals									
				10 10 VDC †		DG DIN 43650									
				12 12 VDC		DL Wire (2)									
				24 24 VDC		DL/W Wire, with Weatherpak® Connector									
				36 36 VDC		DR Deutsch DT04-2P									
				48 48 VDC											
Valve block oil port		0		24 24 VAC		Standard coil termination (VAC)									
Order plug-in components only		SAE 6 6T		115 115 VAC		AG DIN 43650									
		1/4 Inch BSP* 2B		230 230 VAC		AP 1/2 InchWire conduit									
		3/8 Inch BSP* 3B		** Includes standard coil nut and coil partition plate		E-coil Terminal (VDC)									
*BSP valve block UK-built only				† Only for DS, DW, or DL terminals.		ER Deutsch DT04-2P (IP69K rated)									
						EY Metri-Pack®150 (IP69K rated)									
						Built-in diode coil available; Please consult the factory									
Seal material				E-coil											
NBR (standard)		N		10 10 VDC											
FKM		V		12 12 VDC											
				20 20 VDC											
				24 24 VDC											

Materials

Cartridge:

Weight: 0.09 kg ; steel, working surfaces hardened; outer surface zinc-plated; PU (standard).

Standard valve block:

Weight: 0.16 kg ; anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); See 8.008.1.

Ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

E-type coil:

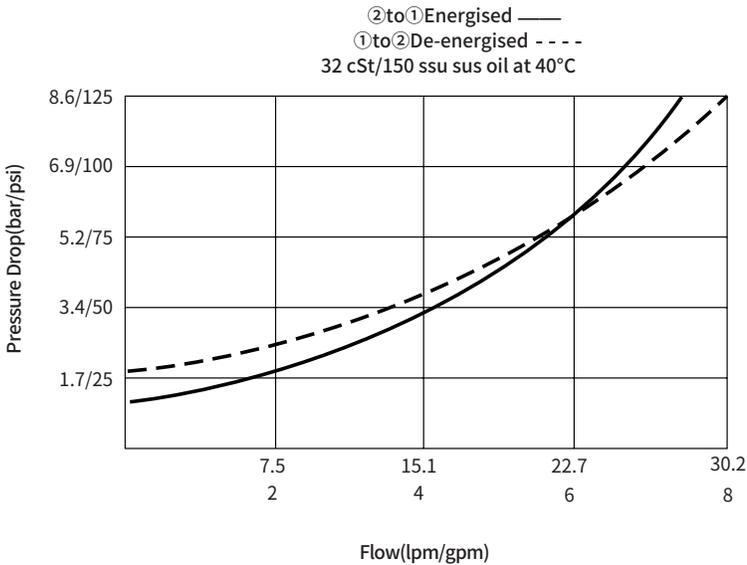
Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with Deutsch connector.

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

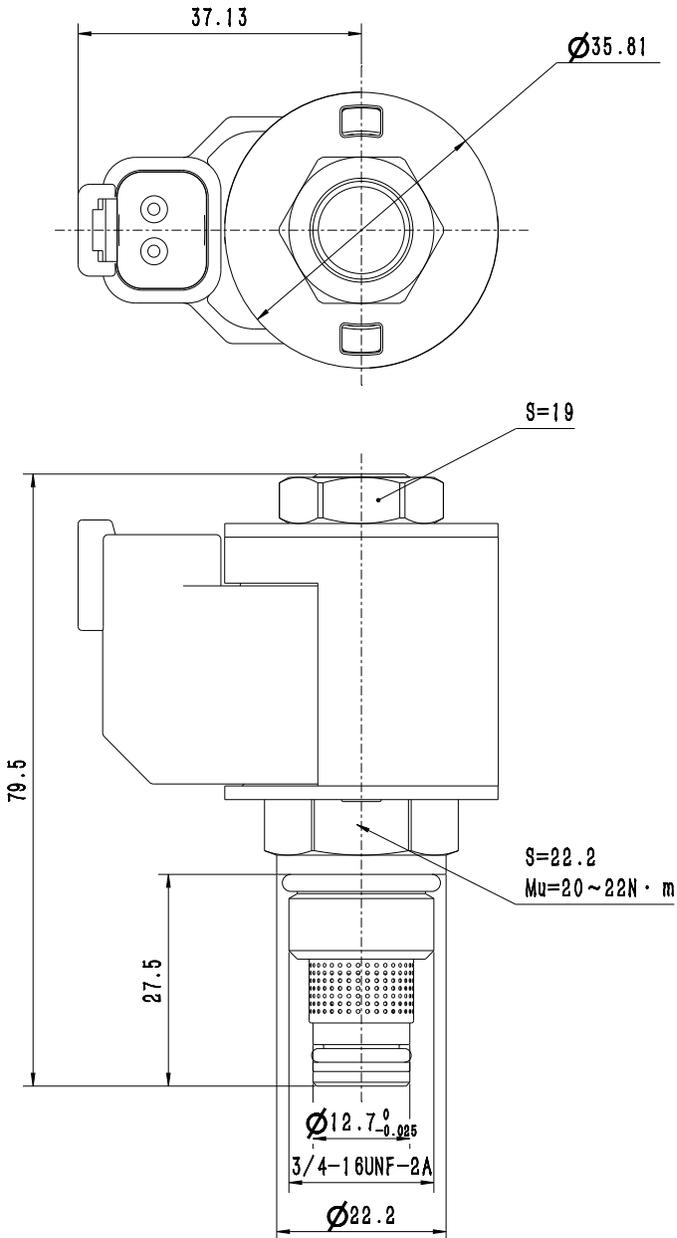
Technical Data

Rated Pressure	207 bar (3000 psi)	
Maximum Flow	30.2 L/min (8 gpm)	
Internal leakage	≤0.15mL/min (3in ³ /min) @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VDC duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectification) duration 0.83A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.34

SV08-2-B20M

Solenoid Directional Valve

Rated Pressure (bar)	240
Max. Flow(L/min)	26.2 (see performance curve)

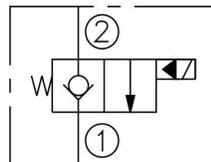
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Solenoid drive, 2-way, normally-closed, direct-acting poppet, hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: SV08-2-B20M acts as a check valve, allowing flow ① → ② while blocking ② → ①.

Energised: poppet lifts to open flow ② → ①; flow ① → ② is heavily restricted.

Emergency manual operation: rotate the brass knob on the valve top until it stops; this override is non-locking.



Model Description

SV08-2-B20M		Standard coil voltage	Standard coil termination (VDC)
		0 No coil**	DS Double spade terminals
		10 10 VDC †	DG DIN 43650
		12 12 VDC	DL Wire (2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
		36 36 VDC	DR Deutsch DT04-2P
		48 48 VDC	
		24 24 VAC	Standard coil termination (VAC)
		115 115 VAC	AG DIN 43650
		230 230 VAC	AP 1/2 InchWire conduit
			E-coil Terminal (VDC)
			ER Deutsch DT04-2P (IP69K rated)
			EY Metri-Pack®150 (IP69K rated)
			Built-in diode coil available; Please consult the factory
		E-coil	
		10 10 VDC	
		12 12 VDC	
		20 20 VDC	
		24 24 VDC	
Valve block oil port			
Order plug-in components only	0		
SAE 6	6T		
1/4 Inch BSP*	2B		
3/8 Inch BSP*	3B		
Seal material			
NBR (standard)	N		
FKM	V		
PU	P		

**includes standard coil nut and coil partition plate

†Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.09 kg ; steel, working surfaces hardened; outer surface zinc-plated; PU (standard).

Standard valve block:

Weight: 0.16 kg ; anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); See 8.008.1.

Ductile-iron and steel manifolds available; dimensions may vary—consult factory.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

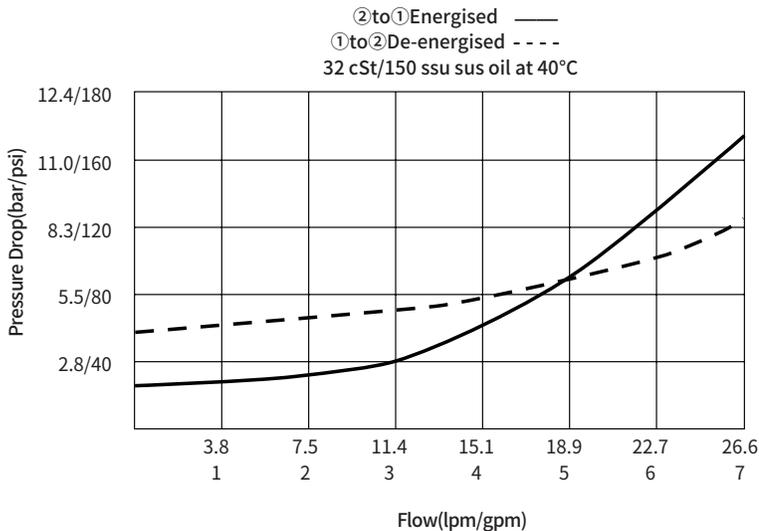
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with Deutsch connector.

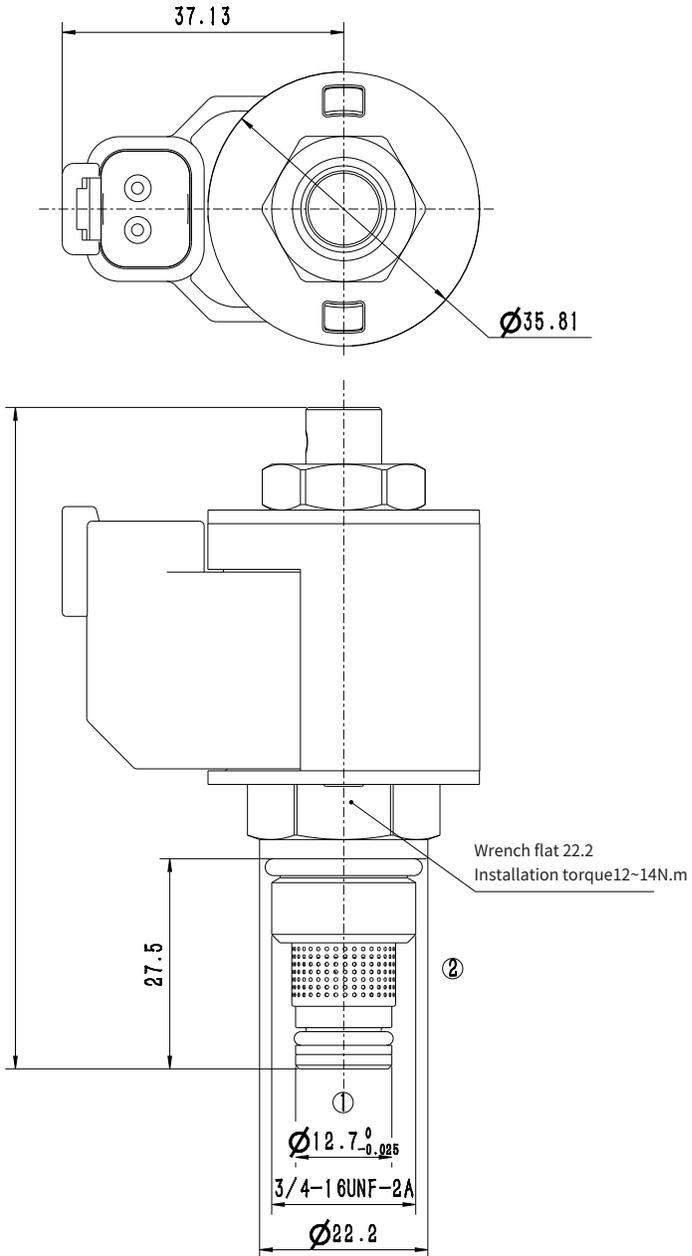
Technical Data

Rated Pressure	207bar (3000 psi)	
Maximum Flow	26.6L/min	
Internal leakage	≤0.15mL/min (3in ³ /min) @207bar	
Coil rated load	Continuous operating within 85 %-115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDCduration1.4A;24VDCduration0.7A
	D-type coil	12VDCduration1.2A;24VDC(Full-waverectification)duration0.83A
Minimum pull-in voltage	207bar:85%of nominalvoltage	
Cavity detail	VC08-2(Seethetechnicalreference materialsfordetails)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to120°C(Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.35

SV10-2-24

Solenoid Directional Valve

Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

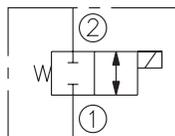
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- Two ports can be fully pressurised
- High-efficiency wet-armature construction
- Optional IP69K waterproof “E” coil
- High-efficiency wet-armature construction
- Industry-common cavity

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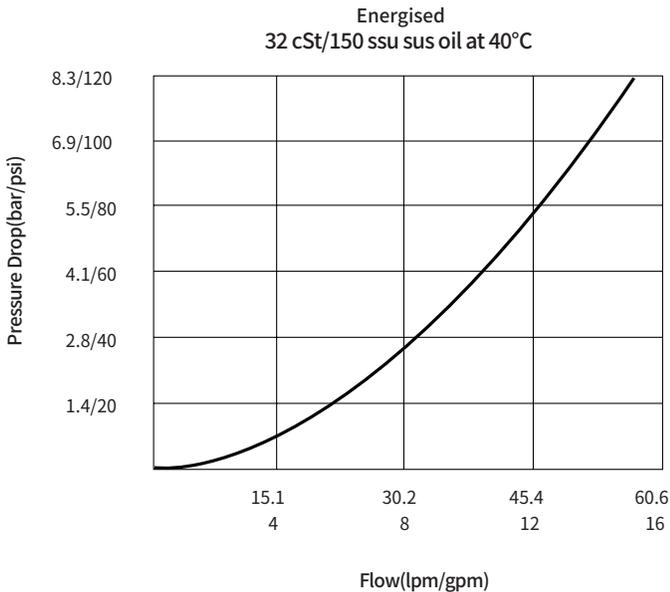
Function Symbol



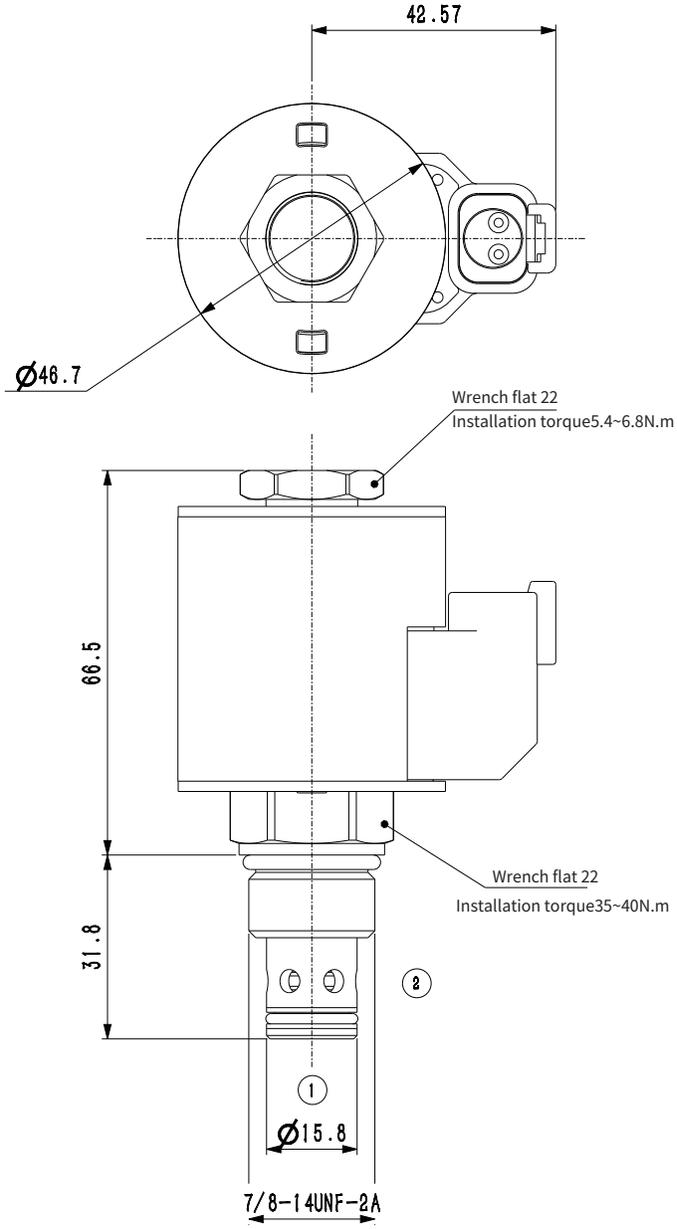
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min	
Internal leakage	≤85ml/min (5.2cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration1.7A;24VAC duration 0.85A
	D-type coil	12VDC duration1.67A; 24VDCduration0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-2(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	-40 to120°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.36

SV10-2-25

Solenoid Directional Valve

Rated Pressure (bar)	207
Max. Flow(L/min)	22.7 (see performance curve)

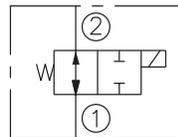
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

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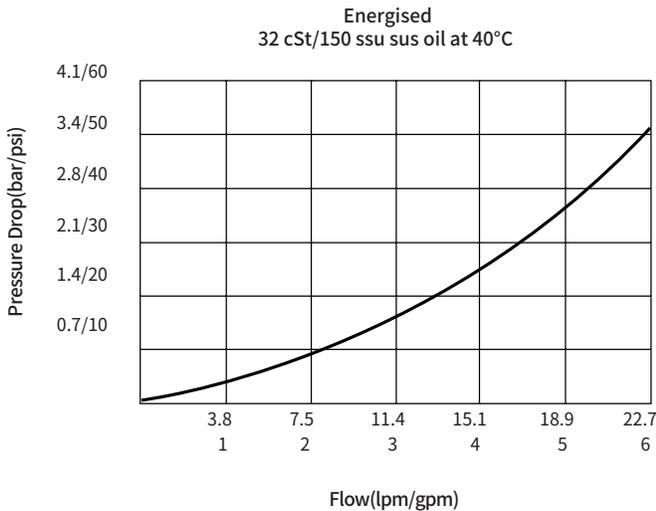
Function Symbol



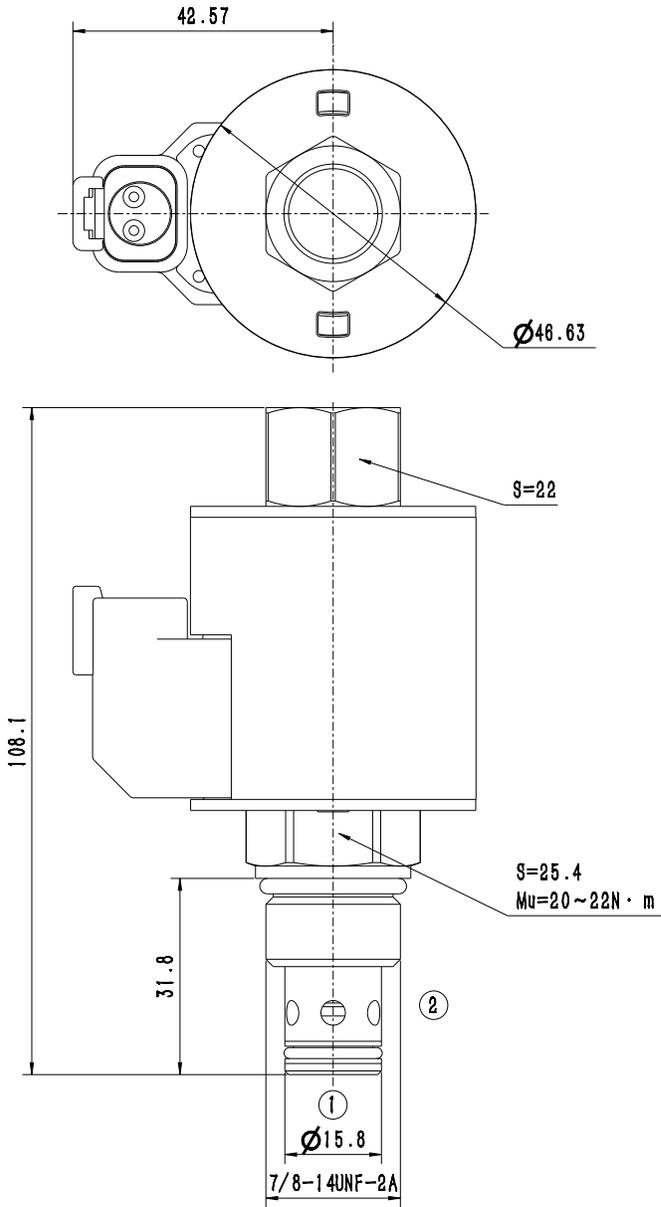
Technical Data

Rated Pressure	210 bar (3000 psi)	
Maximum Flow	22.7 L/min (6.0gpm)	
Internal leakage	≤278mL/min @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VDC (Full-wave rectification) duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectification) duration 0.83A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.37

SV10-3-31

Solenoid directional valve

Features

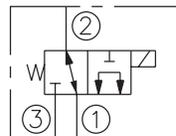
Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

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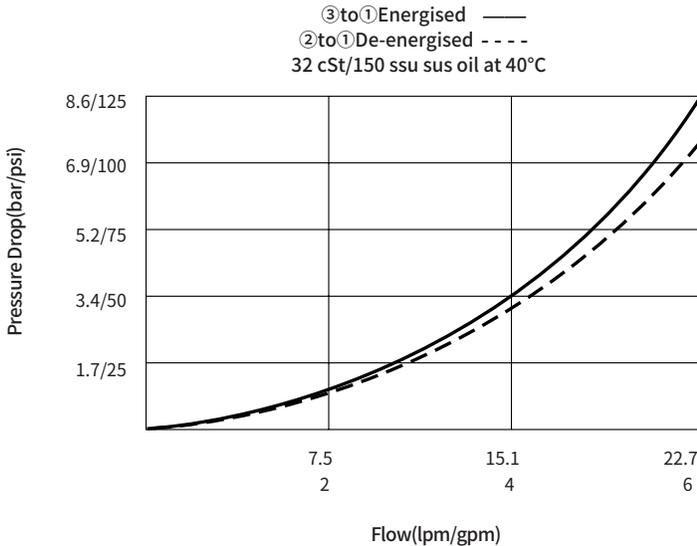
Function Symbol



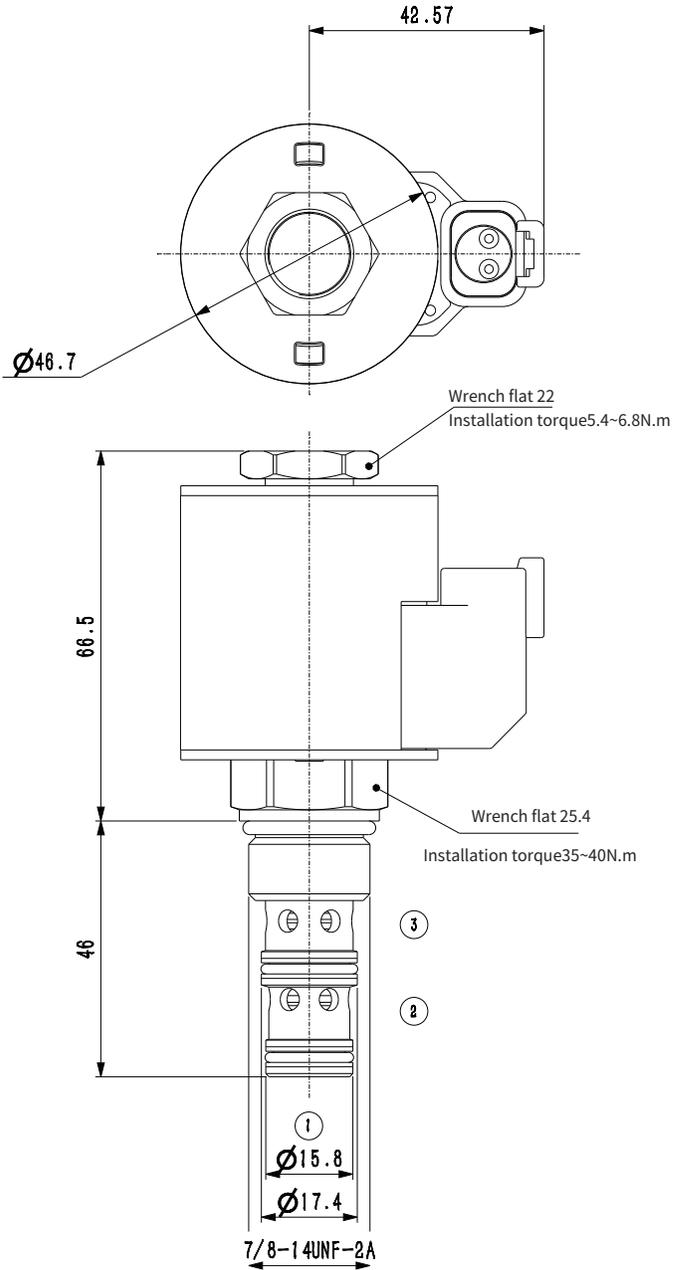
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85ml/min (5.2cu. in./min) @210bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 24VDC duration 0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.38

SV10-3-33

Solenoid directional valve

Features

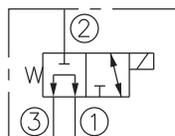
Rated Pressure (bar)	210
Max. Flow(L/min)	18.9 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

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Function Symbol



Description

Solenoid drive, 2-position, 3-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ③ → ① and blocks port ②.

Energised: poppet shifts to open flow ① → ② while blocking port ③.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out.

In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV10-3-33		-		-		-		-		-	
Model options		None (blank)		Standard coil voltage		Standard coil termination (VDC)					
Manual override	M	0	No coil**	DS	Double spade terminals						
		10	10 VDC †	DG	DIN 43650						
		12	12 VDC	DL	Wire (2)						
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector						
		36	36 VDC	DR	Deutsch DT04-2P						
		48	48 VDC								
Valve block oil port		24	24 VAC								
Order plug-in components only	0	115	115 VAC	Standard coil termination (VAC)							
SAE 6	6T	230	230 VAC	AG	DIN 43650						
1/4 Inch BSP*	2B			AP	1/2 Inch Wire conduit						
3/8 Inch BSP*	3B			E-coil Terminal (VDC)							
				ER	Deutsch DT04-2P (IP69K rated)						
				EY	Metri-Pack® 150 (IP69K rated)						
				Built-in diode coil available; Please consult the factory							
Seal material		E-coil									
NBR (standard)	N	10	10 VDC								
FKM	V	12	12 VDC								
PU	P	20	20 VDC								
		24	24 VDC								

Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

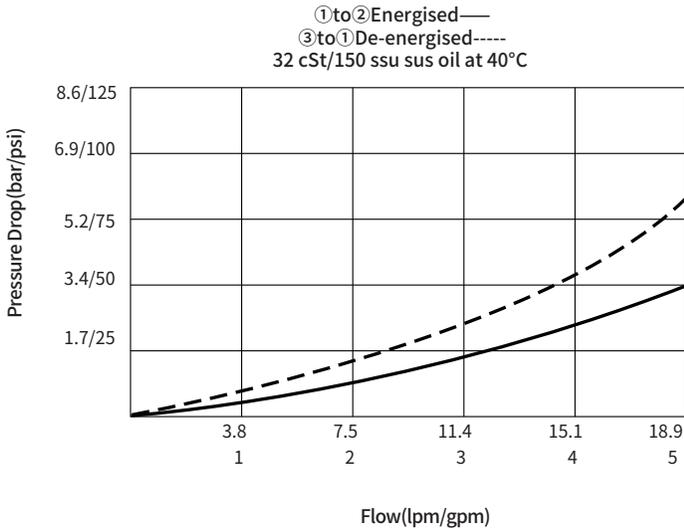
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

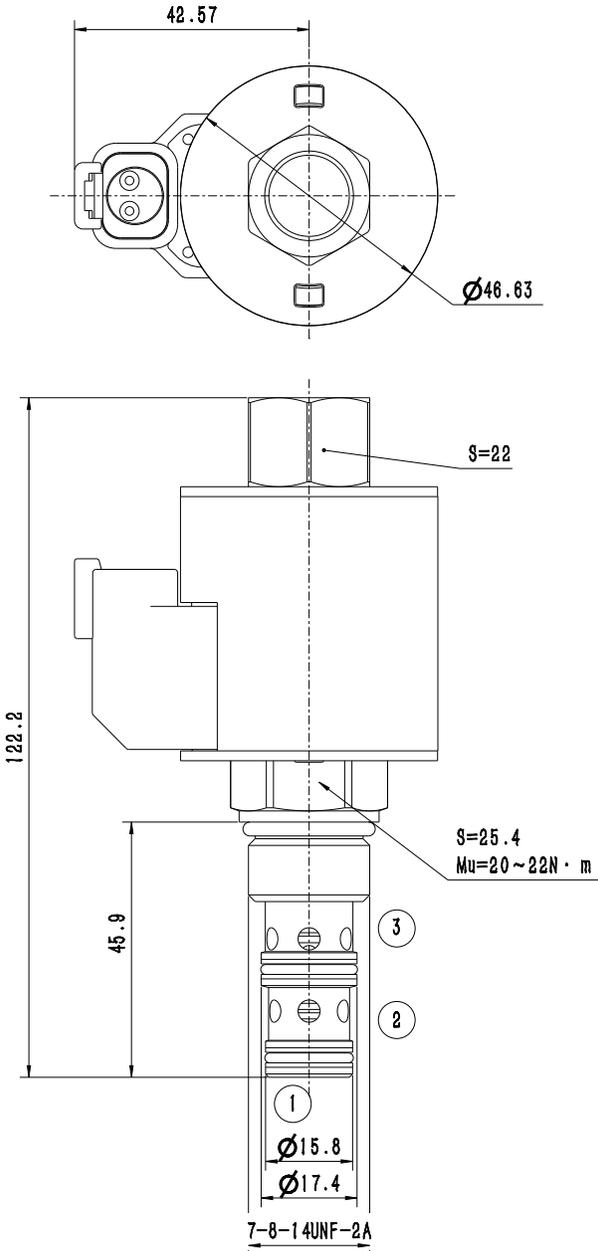
Technical Data

Rated Pressure	210 bar (3000 psi)	
Maximum Flow	18.9 L/min (5gpm)	
Internal leakage	≤278mL/min @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VDC (Full-wave rectification) duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectification) duration 0.83A
Minimum pull-in voltage	207ar: 85 % of nominal voltage	
Cavity detail	VC08-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.39

SV10-3-34

Solenoid directional valve

Rated Pressure (bar)	210
Max. Flow(L/min)	22.7 (see performance curve)

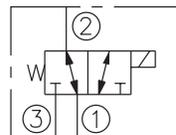
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- Compact construction
- Emergency manual override option
- Optional IP69K waterproof Type E coil
- Industry-common cavity
- Compact construction

Contents

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Function Symbol



Description

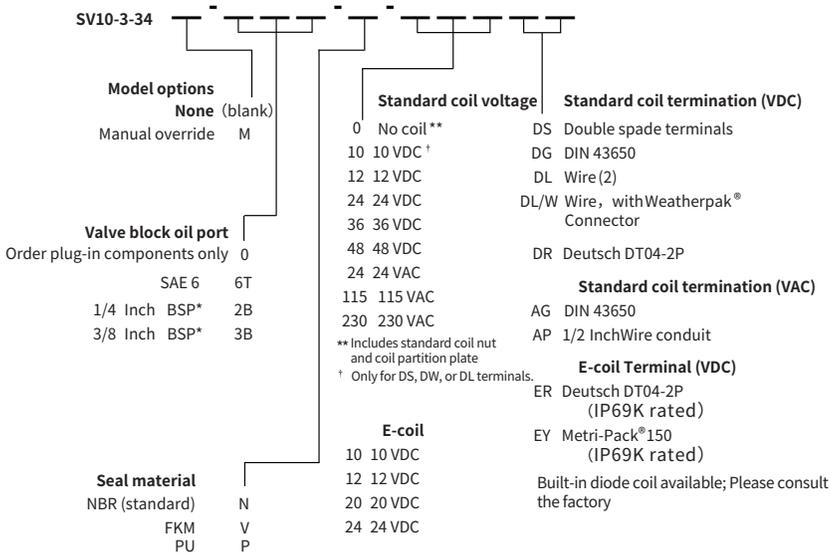
Solenoid drive, 2-position, 3-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ② → ① and blocks port ③.
 Energised: poppet shifts to open flow ② → ③ while blocking port ①. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.
 For full emergency shift pull the button to its maximum travel and hold.
 To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description



Materials

Cartridge:

Weight: 0.2 kg (0.45 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

E-type coil:

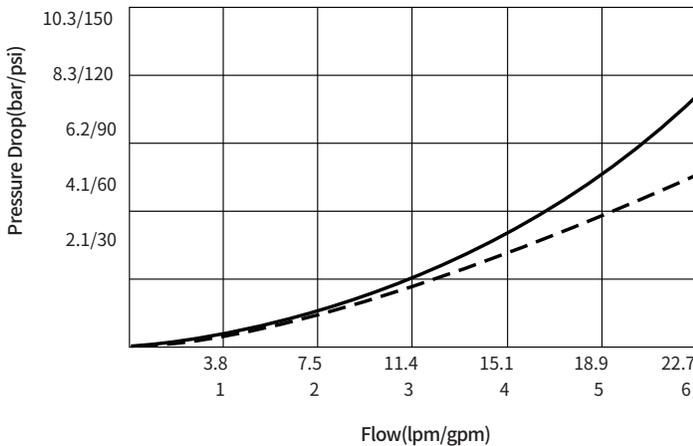
Weight: 0.40 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

Technical Data

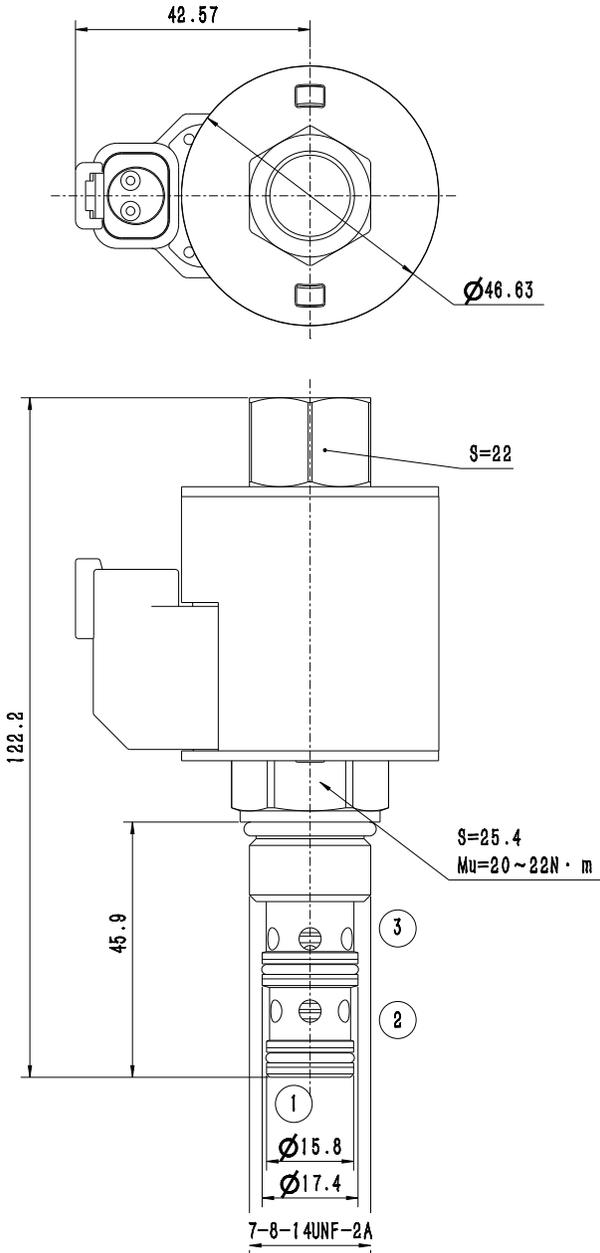
Rated Pressure	210 bar (3000 psi)	
Maximum Flow	22.7 L/min (3.0 gpm)	
Internal leakage	≤278mL/min @207 bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VDC (Full-wave rectification) duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectification) duration 0.83A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-3 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Polyurethane seal)	

Performance Curve (insert type only)

②to③ Energised —
 ②to① De-energised - - - -
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





SOLINER

2.40

SV10-3-35

Solenoid directional valve

Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

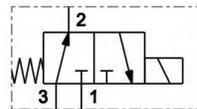
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

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Function Symbol



Description

Solenoid drive, 3-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ③ → ② and blocks port ①.
 Energised: poppet shifts to open flow ② → ① while blocking port ③. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.
 For full emergency shift pull the button to its maximum travel and hold.
 To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV10-3-35		-		-		-		-		-	
Model options		Standard coil voltage		Standard coil termination (VDC)							
None (blank)		0	No coil**	DS	Double spade terminals						
Manual override	M	10	10 VDC †	DG	DIN 43650						
		12	12 VDC	DL	Wire (2)						
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector						
		36	36 VDC	DR	Deutsch DT04-2P						
Valve block oil port		48	48 VDC								
Order plug-in components only	0	24	24 VAC	Standard coil termination (VAC)							
SAE 6	6T	115	115 VAC	AG	DIN 43650						
1/4 Inch BSP*	2B	230	230 VAC	AP	1/2 InchWire conduit						
3/8 Inch BSP*	3B			E-coil Terminal (VDC)							
				ER	Deutsch DT04-2P (IP69K rated)						
				EY	Metri-Pack®150 (IP69K rated)						
Seal material		E-coil		Built-in diode coil available; Please consult the factory							
NBR (standard)	N	10	10 VDC								
FKM	V	12	12 VDC								
PU	P	20	20 VDC								
		24	24 VDC								

** Includes standard coil nut and coil partition plate
 † Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

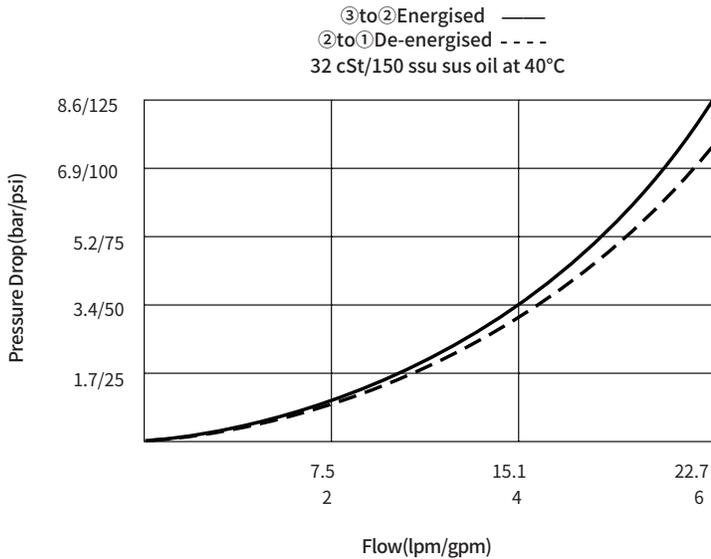
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

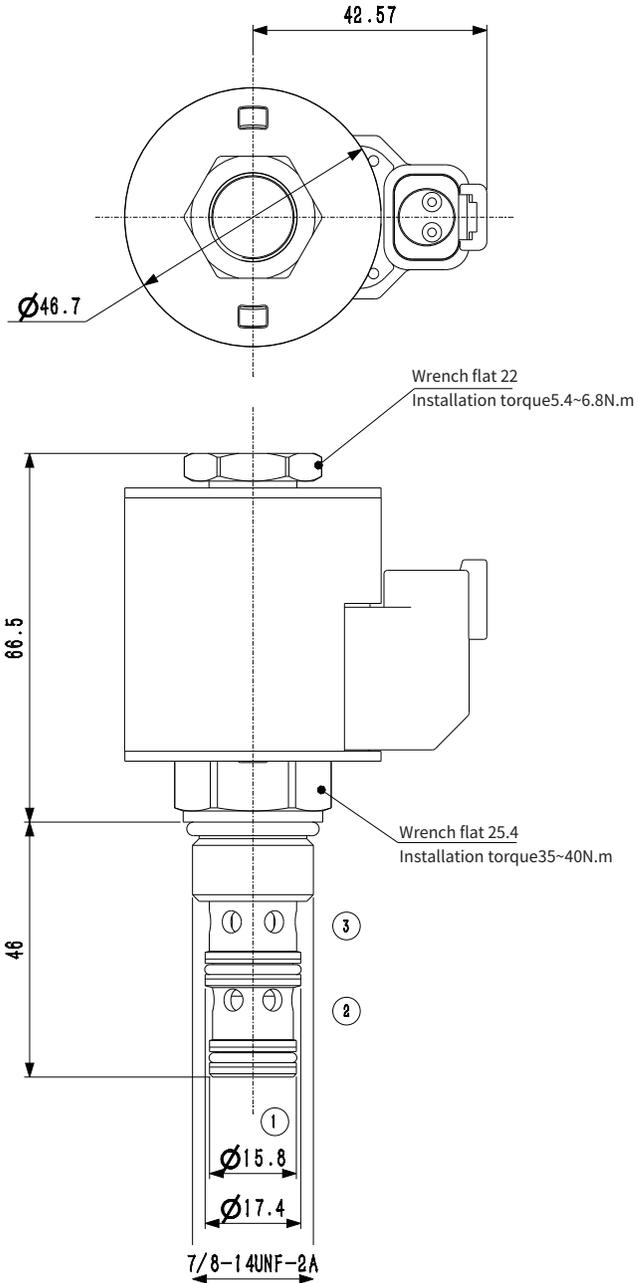
Technical Data

Rated Pressure	210 bar (3000 psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85mL/min (5.2cu. in./min) @210 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VDC (Full-wave rectification) duration 0.85A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectification) duration 0.83A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Polyurethane seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.41

SV10-4-40

Solenoid directional valve

Features

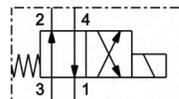
Rated Pressure (bar)	210
Max. Flow(L/min)	22.7 (see performance curve)

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ③ → ② and ④ → ①.

Energised: poppet shifts to open flow ③ → ④ and ② → ①. Emergency manual

override operation: press and hold the button,

rotate 180° counter-clockwise, then release. Internal spring pushes the button out.

In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise,

then release—the emergency override locks in this position.



Model Description

<p>SV10-4-40</p> <p>Model options</p> <p>None (blank)</p> <p>Manual override M</p> <p>Valve block oil port</p> <p>Order plug-in components only 0</p> <p>SAE 6 6T</p> <p>1/4 Inch BSP* 2B</p> <p>3/8 Inch BSP* 3B</p> <p>Seal material</p> <p>NBR (standard) N</p> <p>FKM V</p> <p>PU P</p>	<p>Standard coil voltage</p> <p>0 No coil**</p> <p>10 10 VDC †</p> <p>12 12 VDC</p> <p>24 24 VDC</p> <p>36 36 VDC</p> <p>48 48 VDC</p> <p>24 24 VAC</p> <p>115 115 VAC</p> <p>230 230 VAC</p> <p>** Includes standard coil nut and coil partition plate</p> <p>† Only for DS, DW, or DL terminals.</p> <p>E-coil</p> <p>10 10 VDC</p> <p>12 12 VDC</p> <p>20 20 VDC</p> <p>24 24 VDC</p>	<p>Standard coil termination (VDC)</p> <p>DS Double spade terminals</p> <p>DG DIN 43650</p> <p>DL Wire (2)</p> <p>DL/W Wire, with Weatherpak® Connector</p> <p>DR Deutsch DT04-2P</p> <p>Standard coil termination (VAC)</p> <p>AG DIN 43650</p> <p>AP 1/2 InchWire conduit</p> <p>E-coil Terminal (VDC)</p> <p>ER Deutsch DT04-2P (IP69K rated)</p> <p>EY Metri-Pack®150 (IP69K rated)</p> <p>Built-in diode coil available; Please consult the factory</p>
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Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

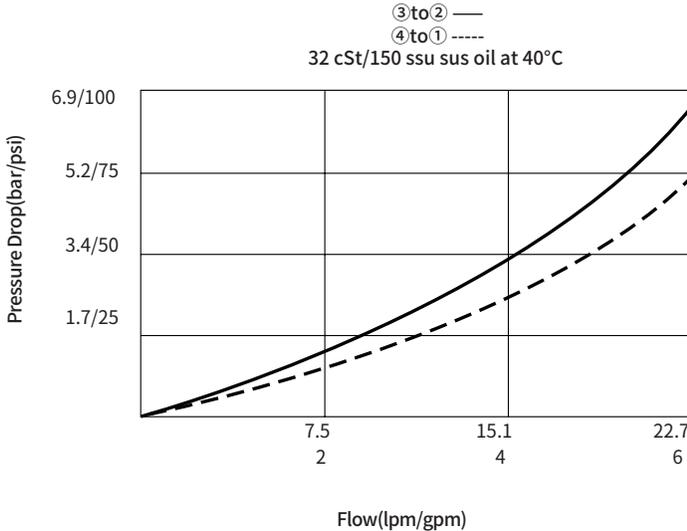
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

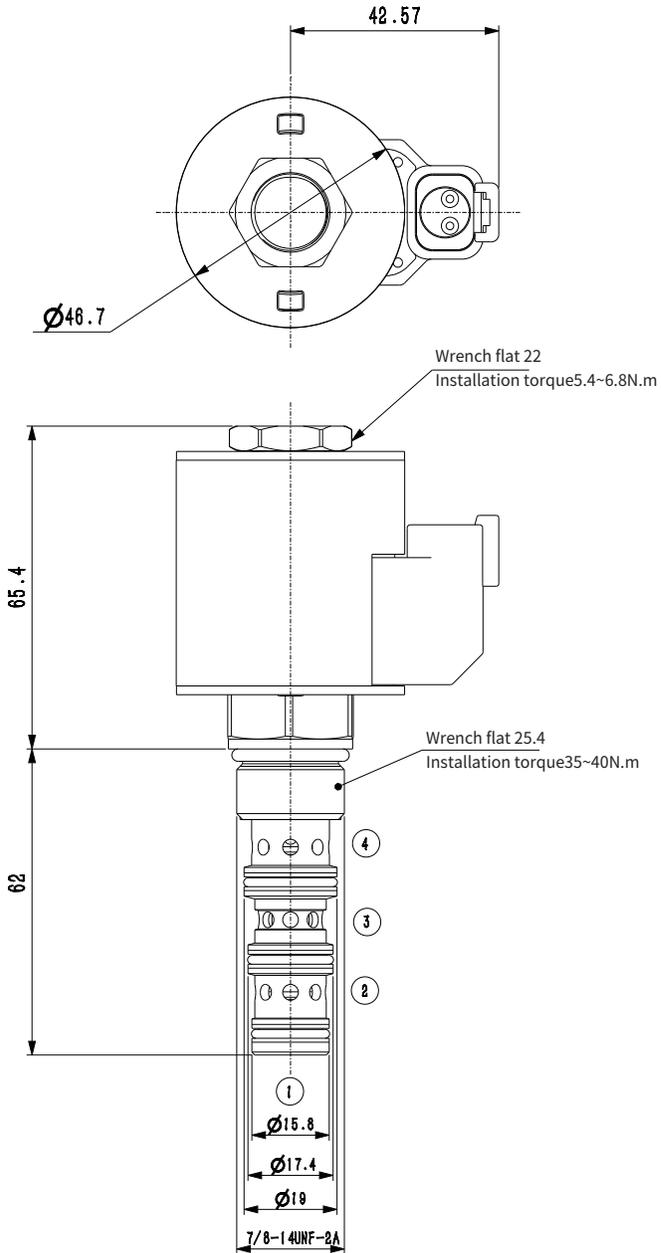
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85ml/min (5.2cu. in./min) @210bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C initial current of the timing coil	Standard coil	12VDC duration 1.7A; 24VAC duration 0.85A
	E-type coil	12VDC duration 1.67A; 24VDC duration 0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.42

SV10-4-40R

Solenoid directional valve

Rated Pressure (bar)	210
Max. Flow(L/min)	22.7 (see performance curve)

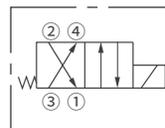
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof Type E coil
- Industry-common cavity
- Compact construction

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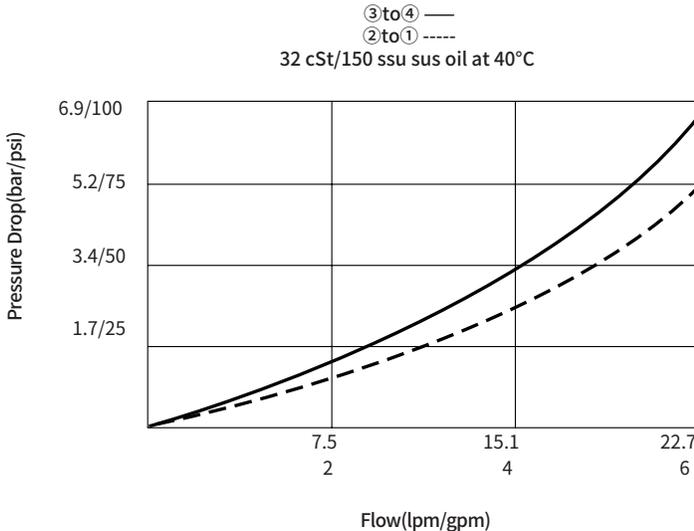
Function Symbol



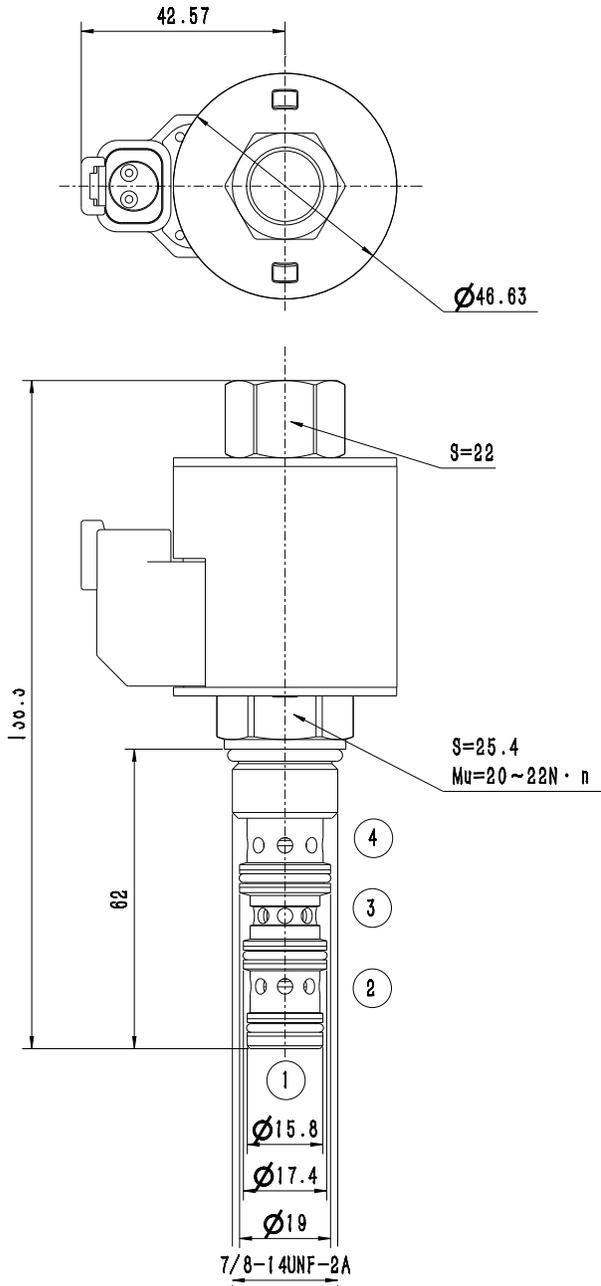
Technical Data

Rated Pressure	210 bar (3000 psi)	
Maximum Flow	22.7 L/min (3.0 gpm)	
Internal leakage	≤278mL/min @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VDC (Full-wave rectification) duration 0.7A
	D-type coil	12VDC duration 1.2A; 24VDC (Full-wave rectification) duration 0.83A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-3 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C (Polyurethane seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.43

SV10-4-41

Solenoid directional valve

Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

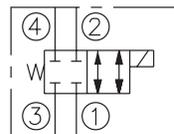
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: blocks flow to all ports.

Energised: poppet shifts to open flow ③ → ④ and ② → ①. Emergency manual

override operation: press and hold the button,

rotate 180° counter-clockwise, then release. Internal spring pushes the button out.

In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV10-4-41		-		-		-		-		-		-		-	
Model options		None (blank)		Standard coil voltage		Standard coil termination (VDC)									
Manual override		M		0 No coil**		DS Double spade terminals									
				10 10 VDC †		DG DIN 43650									
				12 12 VDC		DL Wire (2)									
				24 24 VDC		DL/W Wire, with Weatherpak® Connector									
				36 36 VDC		DR Deutsch DT04-2P									
				48 48 VDC											
Valve block oil port		Order plug-in components only 0		24 24 VAC		Standard coil termination (VAC)									
SAE 6		6T		115 115 VAC		AG DIN 43650									
1/4 Inch BSP*		2B		230 230 VAC		AP 1/2 InchWire conduit									
3/8 Inch BSP*		3B		** Includes standard coil nut and coil partition plate		E-coil Terminal (VDC)									
				† Only for DS, DW, or DL terminals.		ER Deutsch DT04-2P (IP69K rated)									
				E-coil		EY Metri-Pack® 150 (IP69K rated)									
				10 10 VDC		Built-in diode coil available; Please consult the factory									
				12 12 VDC											
				20 20 VDC											
				24 24 VDC											
Seal material															
NBR (standard)		N													
FKM		V													
PU		P													

Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

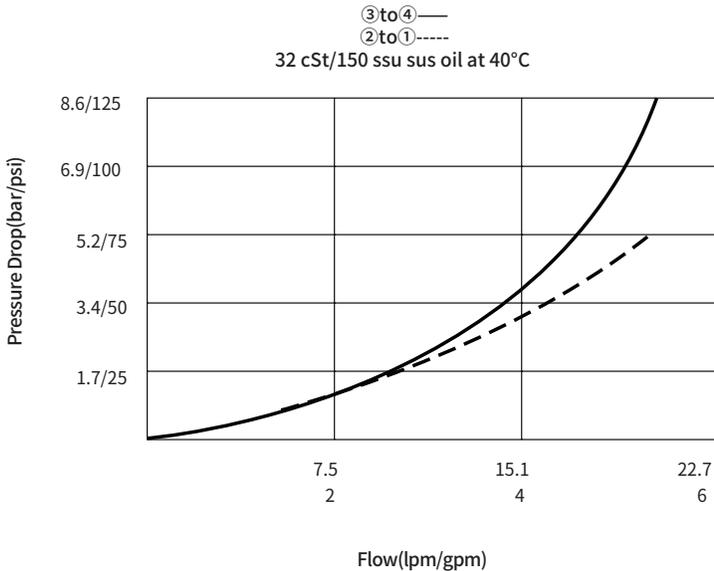
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

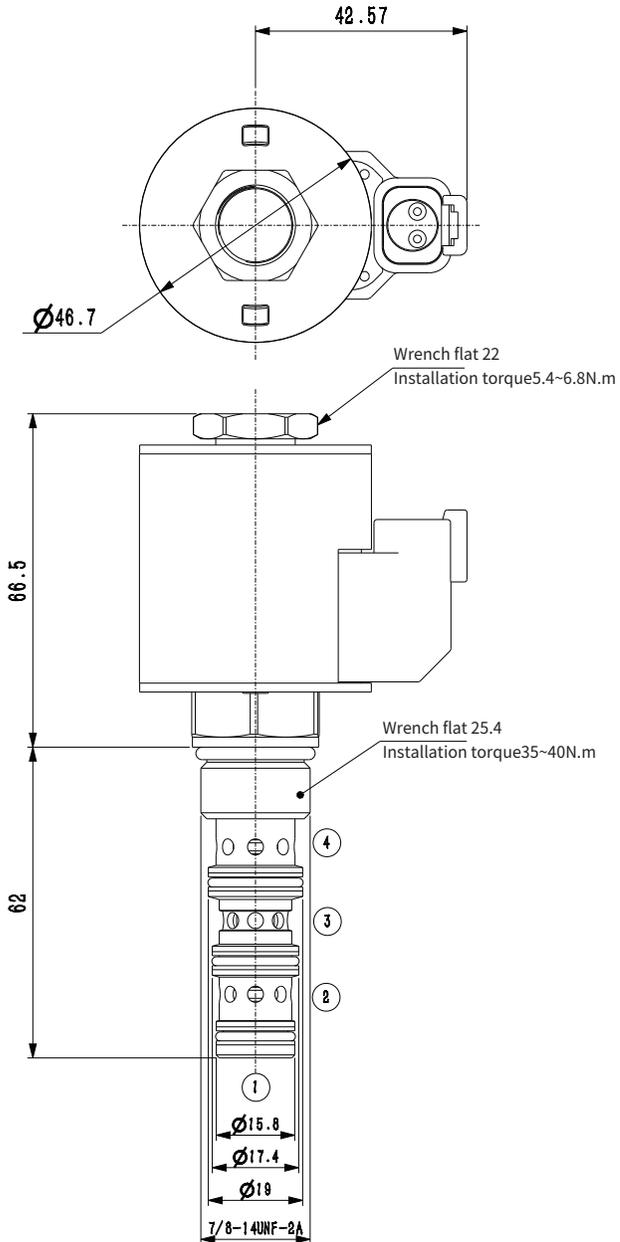
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85ml/min (5.2cu. in./min) @210bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 24VDC duration 0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.44

SV10-4-42

Solenoid directional valve

Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

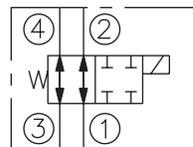
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

Contents

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Function Symbol



Description

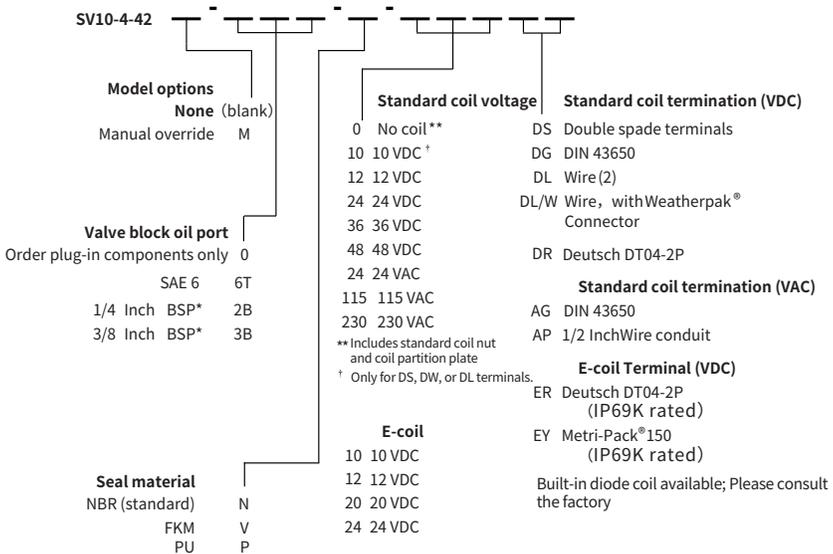
Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ③ → ④ and ② → ①.
 Energised: poppet shifts to block flow at all ports. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.
 For full emergency shift pull the button to its maximum travel and hold.
 To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description



Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

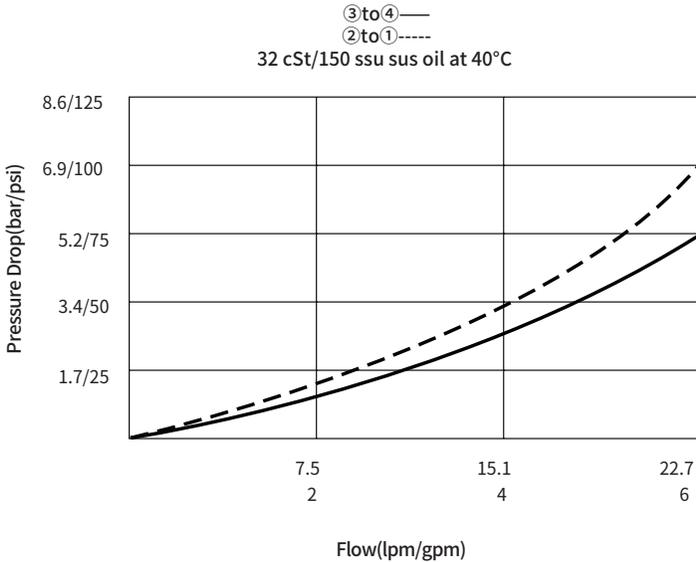
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

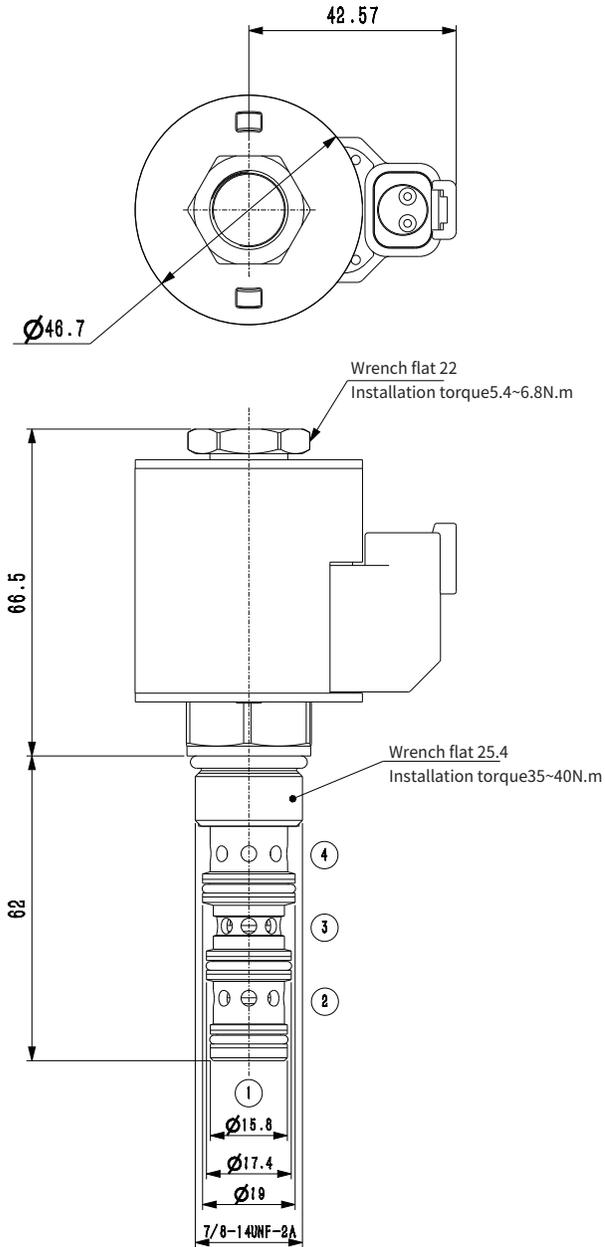
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85ml/min (5.2cu. in./min) @210bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration1.67A; 24VDC duration0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	-40 to120°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.45

SV10-4-43

Solenoid directional valve

Features

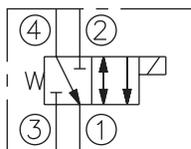
Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

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Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ④ → ① and blocks ports ③ and ②.

Energised: poppet shifts to allow flow ③ → ④ and ② → ①. Although port ① can be fully pressurised, it is not to be used as the valve inlet. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV10-4-43									
Model options		Standard coil voltage		Standard coil termination (VDC)					
None (blank)		0 No coil**		DS Double spade terminals					
Manual override M		10 10 VDC †		DG DIN 43650					
		12 12 VDC		DL Wire (2)					
		24 24 VDC		DL/W Wire, with Weatherpak® Connector					
		36 36 VDC		DR Deutsch DT04-2P					
		48 48 VDC							
Valve block oil port		24 24 VAC		Standard coil termination (VAC)					
Order plug-in components only 0		115 115 VAC		AG DIN 43650					
SAE 6 6T		230 230 VAC		AP 1/2 InchWire conduit					
1/4 Inch BSP* 2B		** Includes standard coil nut and coil partition plate		E-coil Terminal (VDC)					
3/8 Inch BSP* 3B		† Only for DS, DW, or DL terminals.		ER Deutsch DT04-2P (IP69K rated)					
		E-coil		EY Metri-Pack® 150 (IP69K rated)					
		10 10 VDC		Built-in diode coil available; Please consult the factory					
		12 12 VDC							
		20 20 VDC							
		24 24 VDC							
Seal material									
NBR (standard) N									
FKM V									
PU P									

Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

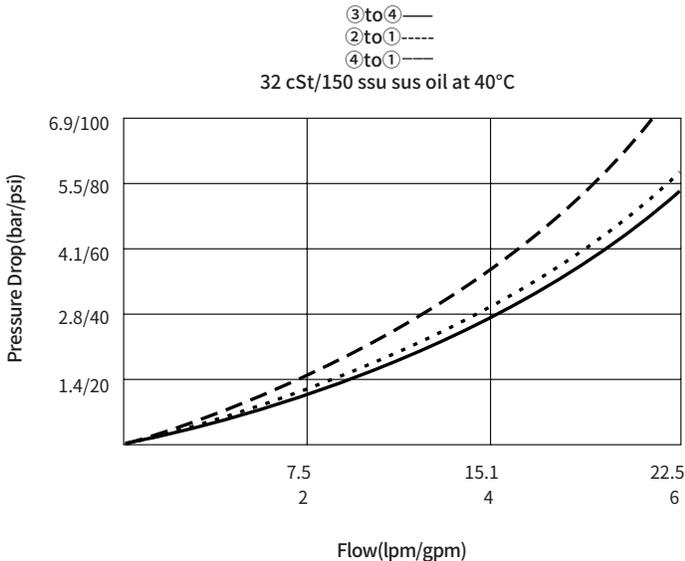
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

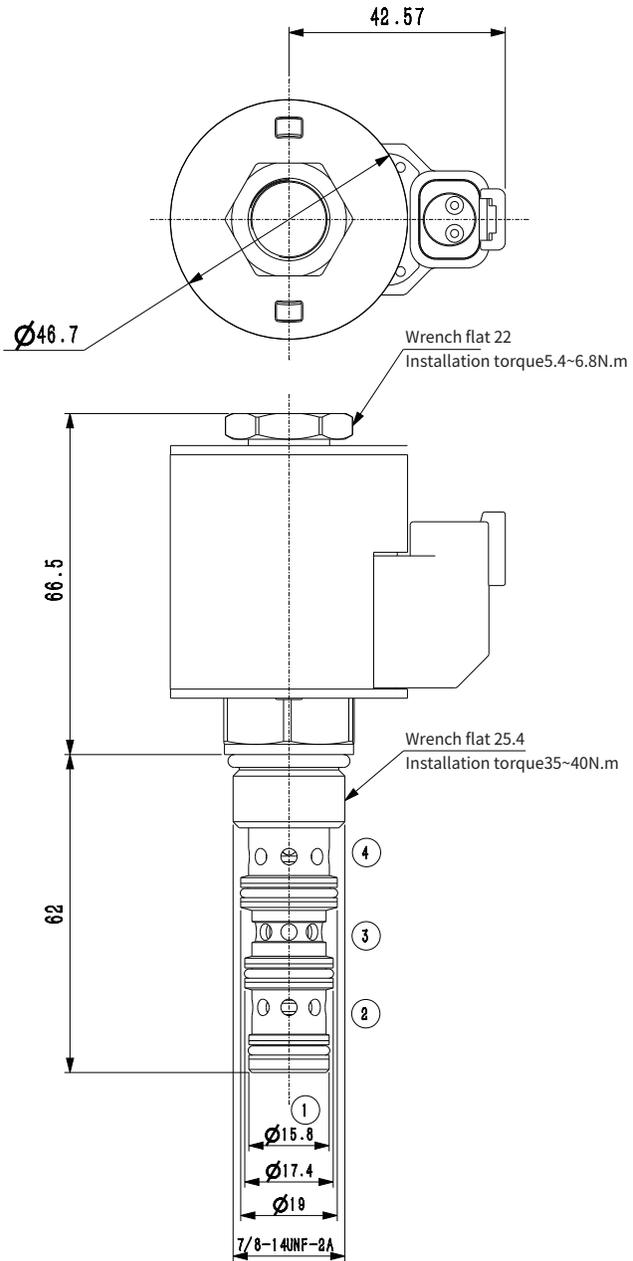
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85ml/min (5.2cu. in./min) @210bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 24VDC duration 0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.46

SV10-4-44

Solenoid directional valve

Features

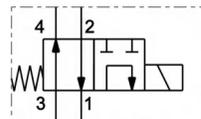
Rated Pressure (bar)	210
Max. Flow(L/min)	22 (see performance curve)

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- Optional IP69K waterproof Type E coil
- Industry-common cavity

Contents

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Outline Dimensions	04

Function Symbol



Description

Solenoid drive, 2-position, 4-way, direct-acting poppet, hydraulic screw-in cartridge valve.

Working Principle

De-energised: permits flow ③ → ④ and ② → ①.

Energised: cartridge poppet shifts to open flow ③ → ① while blocking ports ④ and

②. Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. Internal spring pushes the button out. In this position the valve may only partial shift.

For full emergency shift pull the button to its maximum travel and hold.

To restore normal valve function press the button, rotate 180° clockwise, then release—the emergency override locks in this position.



Model Description

SV10-4-44			
Model options		Standard coil voltage	Standard coil termination (VDC)
None (blank)		0 No coil**	DS Double spade terminals
Manual override M		10 10 VDC †	DG DIN 43650
		12 12 VDC	DL Wire (2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
		36 36 VDC	
		48 48 VDC	DR Deutsch DT04-2P
Valve block oil port		24 24 VAC	
Order plug-in components only		115 115 VAC	Standard coil termination (VAC)
SAE 6	6T	230 230 VAC	AG DIN 43650
1/4 Inch BSP*	2B		AP 1/2 Inch Wire conduit
3/8 Inch BSP*	3B		
		** Includes standard coil nut and coil partition plate	E-coil Terminal (VDC)
		† Only for DS, DW, or DL terminals.	ER Deutsch DT04-2P (IP69K rated)
			EY Metri-Pack® 150 (IP69K rated)
Seal material		E-coil	Built-in diode coil available; Please consult the factory
NBR (standard)	N	10 10 VDC	
FKM	V	12 12 VDC	
PU	P	20 20 VDC	
		24 24 VDC	

Materials

Cartridge:

Weight: 0.14 kg (0.30 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi).

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire. See 3.200.1

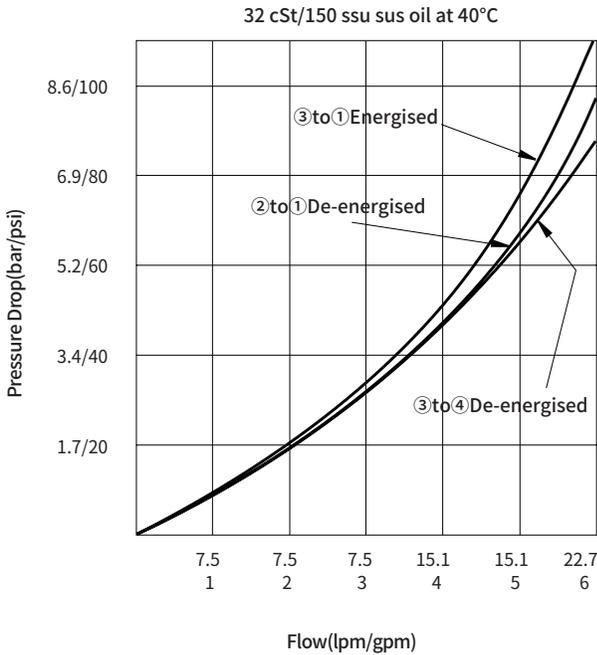
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

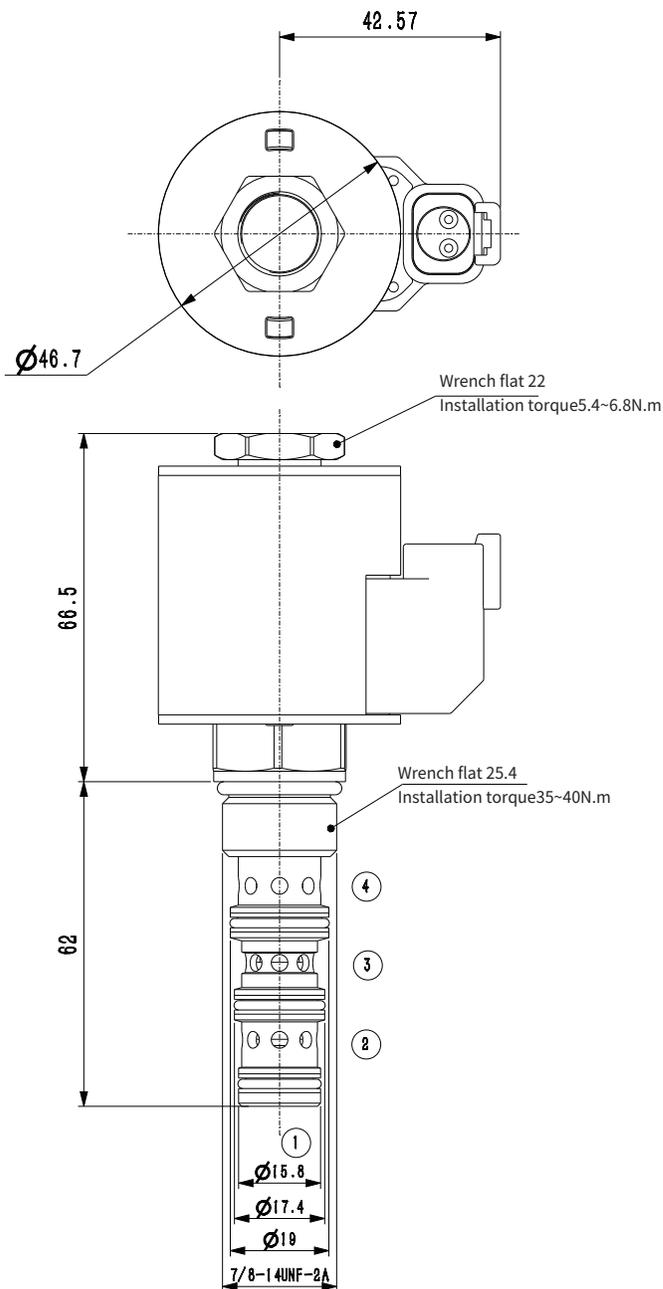
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	22L/min (5.8gpm)	
Internal leakage	≤85ml/min (5.2cu. in./min) @210bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 24VDC duration 0.83 A
Minimum pull-in voltage	210bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.47

SV10-4-47A

Solenoid directional valve

Rated Pressure (bar)	240
Max. Flow(L/min)	19 (see performance curve)

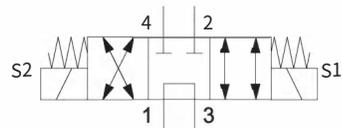
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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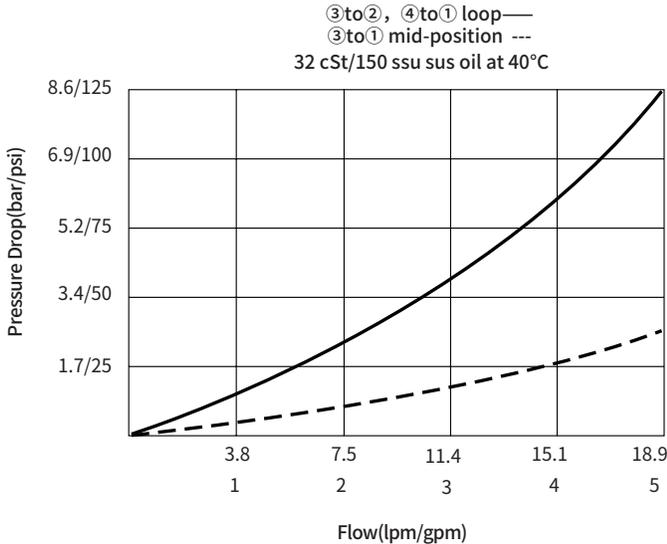
Function Symbol



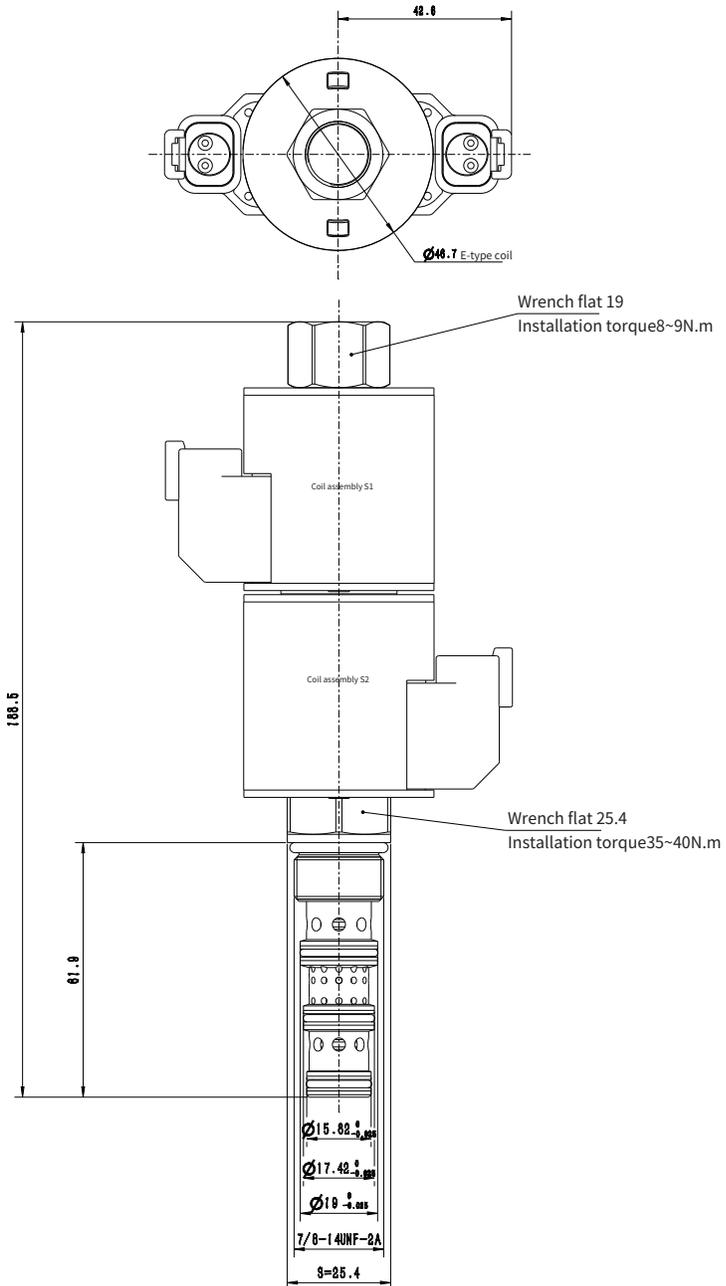
Technical Data

Rated Pressure	240bar (3500psi)	
Maximum Flow	19L/min (3.0gpm)	
Internal leakage	≤82ml/min @210bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration1.67A; 24VDC duration0.18 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	-40 to120°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.48

SV10-4-47B

Solenoid directional valve

Rated Pressure (bar)	240
Max. Flow(L/min)	22.7 (see performance curve)

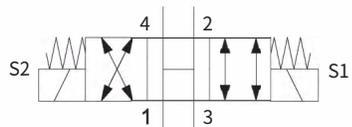
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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Function Symbol



Description

Solenoid drive, 3-position, 4-way, direct-acting poppet, tandem-centre, hydraulic screw-in cartridge valve.

Working Principle

De-energised: connects cylinder ports and also opens flow ③ ↔ ①.

Coil 1 energised: permits flow ③ → ④ and ② → ①.

Coil 2 energised: permits flow ③ → ② and ④ → ①. In circuits with unequal actuator-port flows due to cylinder area ratio, connect the higher return flow to port ②.

Although port ① can be fully pressurised, it is not to be used as the valve inlet.

Emergency manual override operation: push the knurled handle to exercise coil 1 (S1) function; pull the handle to exercise coil 2 (S2) function.



Model Description

SV10-4-47B		Standard coil voltage		Standard coil termination (VDC)	
Model options		0	No coil**	DS	Double spade terminals
None (blank)		10	10 VDC †	DG	DIN 43650
Manual override	M	12	12 VDC	DL	Wire (2)
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector
		36	36 VDC	DR	Deutsch DT04-2P
		48	48 VDC		
Valve block oil port		24	24 VAC		
Order plug-in components only	0	115	115 VAC		Standard coil termination (VAC)
SAE 6	6T	230	230 VAC	AG	DIN 43650
1/4 Inch	BSP* 2B			AP	1/2 Inch Wire conduit
3/8 Inch	BSP* 3B				E-coil Terminal (VDC)
				ER	Deutsch DT04-2P (IP69K rated)
				EY	Metri-Pack® 150 (IP69K rated)
					Built-in diode coil available; Please consult the factory
Seal material		E-coil			
NBR (standard)	N	10	10 VDC		
FKM	V	12	12 VDC		
PU	P	20	20 VDC		
		24	24 VDC		

** Includes standard coil nut and coil partition plate

† Only for DS, DW, or DL terminals.

Materials

Cartridge:

Weight: 0.30 kg (0.65 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

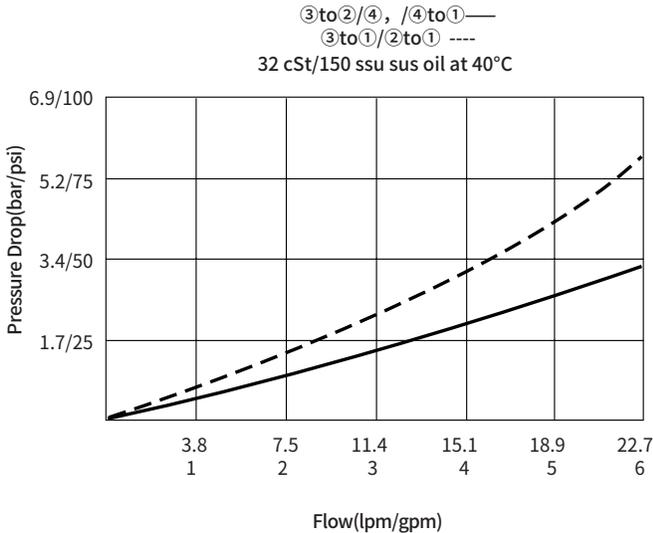
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

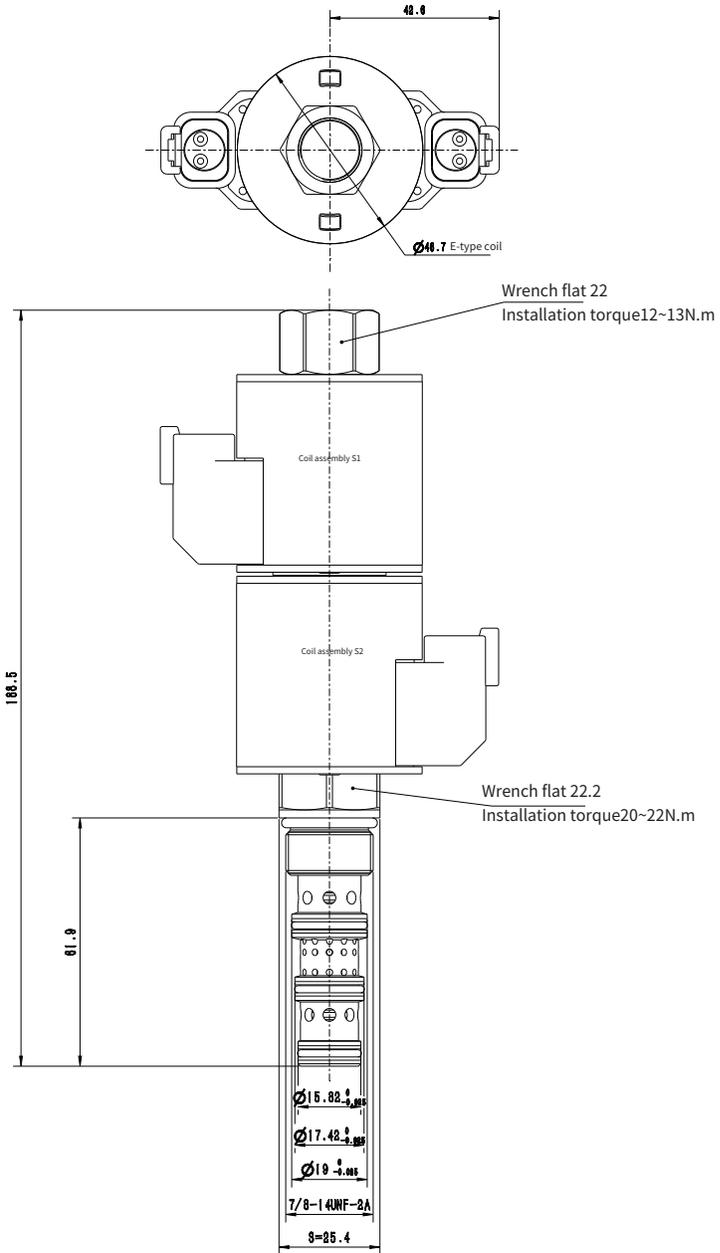
Technical Data

Rated Pressure	240bar (3500psi)	
Maximum Flow	22.7L/min (6.0gpm)	
Internal leakage	≤328ml/min (5.2cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 24VDC duration 0.18 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 120°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.49

SV10-4-47C

Solenoid directional valve

Rated Pressure (bar)	207
Max. Flow(L/min)	23 (see performance curve)

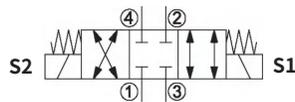
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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Function Symbol



Description

Solenoid drive, 3-position, 4-way, direct-acting poppet, tandem-centre, hydraulic screw-in cartridge valve.

Working Principle

De-energised: blocks cylinder ports and allows flow ③ → ①.

Coil 1 energised: permits flow ③ → ② and ④ → ①.

Coil 2 energised: permits flow ③ → ④ and ② → ①. In circuits with unequal actuator-port flows due to cylinder area ratio, connect the higher return flow to port ②.

Although port ① can be fully pressurised, it is not to be used as the valve inlet.

Emergency manual override operation: push the knurled handle to exercise coil 1 (S1) function; pull the handle to exercise coil 2 (S2) function.



Model Description

SV10-4-47C		Standard coil voltage	Standard coil termination (VDC)
Model options			
None (blank)		0 No coil**	DS Double spade terminals
Manual override M		10 10 VDC †	DG DIN 43650
		12 12 VDC	DL Wire(2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
		36 36 VDC	
		48 48 VDC	DR Deutsch DT04-2P
Valve block oil port		24 24 VAC	
Order plug-in components only 0		115 115 VAC	Standard coil termination (VAC)
SAE 6 6T		230 230 VAC	AG DIN 43650
1/4 Inch BSP* 2B			AP 1/2 InchWire conduit
3/8 Inch BSP* 3B			
		** Includes standard coil nut and coil partition plate	E-coil Terminal (VDC)
		† Only for DS, DW, or DL terminals.	ER Deutsch DT04-2P (IP69K rated)
			EY Metri-Pack®150 (IP69K rated)
Seal material		E-coil	Built-in diode coil available; Please consult the factory
NBR (standard) N		10 10 VDC	
FKM V		12 12 VDC	
PU P		20 20 VDC	
		24 24 VDC	

Materials

Cartridge:

Weight: 0.30 kg (0.65 lb); steel, working surfaces hardened; outer surface zinc-plated;

NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to

240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

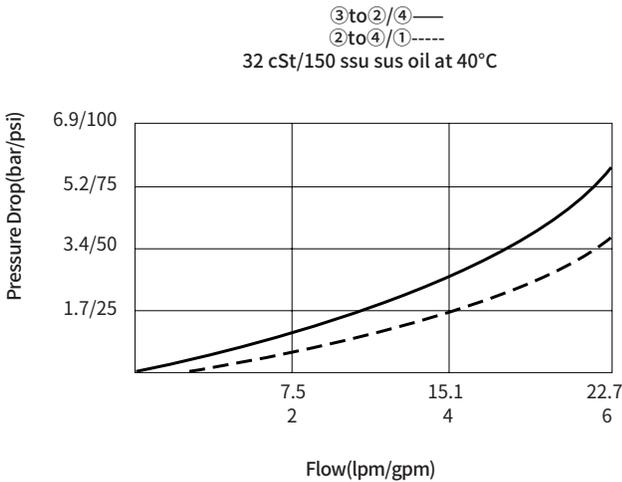
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector, with new application of E-type coil.

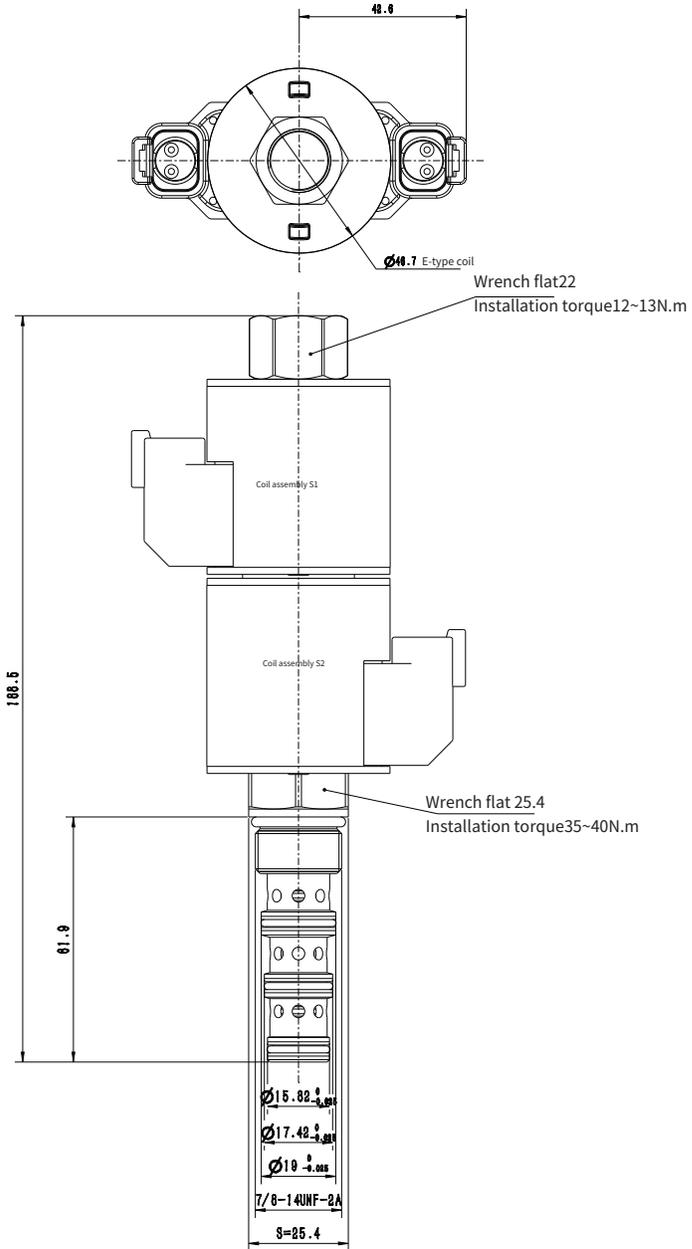
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	23L/min (6.0gpm)	
Internal leakage	≤164ml/min @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 115VDC duration 0.18 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.50

SV10-4-47D

Solenoid directional valve

Rated Pressure (bar)	207
Max. Flow(L/min)	23 (see performance curve)

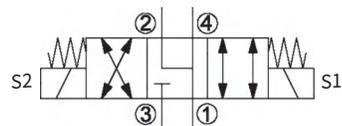
Features

- Continuous-duty rated solenoid coil
- Hardened valve core and sleeve for long life
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- All ports can be fully pressurised
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

Contents

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Function Symbol



Description

Solenoid drive, 3-position, 4-way, direct-acting poppet, tandem-centre, hydraulic screw-in cartridge valve.

Working Principle

De-energised: blocks cylinder ports and allows flow ③ → ①.

Coil 1 energised: permits flow ③ → ② and ④ → ①.

Coil 2 energised: permits flow ③ → ④ and ② → ①. In circuits with unequal actuator-port flows due to cylinder area ratio, connect the higher return flow to port ②.

Although port ① can be fully pressurised, it is not to be used as the valve inlet.

Emergency manual override operation: push the knurled handle to exercise coil 1 (S1) function; pull the handle to exercise coil 2 (S2) function.



Model Description

SV10-4-47D		Standard coil voltage		Standard coil termination (VDC)	
Model options		0	No coil**	DS	Double spade terminals
None (blank)		10	10 VDC †	DG	DIN 43650
Manual override	M	12	12 VDC	DL	Wire (2)
		24	24 VDC	DL/W	Wire, with Weatherpak® Connector
Valve block oil port		36	36 VDC	DR	Deutsch DT04-2P
Order plug-in components only	0	48	48 VDC		Standard coil termination (VAC)
SAE 6	6T	24	24 VAC	AG	DIN 43650
1/4 Inch BSP*	2B	115	115 VAC	AP	1/2 Inch Wire conduit
3/8 Inch BSP*	3B	230	230 VAC		E-coil Terminal (VDC)
		**Includes standard coil nut and coil partition plate		ER	Deutsch DT04-2P (IP69K rated)
		† Only for DS, DW, or DL terminals.		EY	Metri-Pack®150 (IP69K rated)
Seal material		E-coil		Built-in diode coil available; Please consult the factory	
NBR (standard)	N	10	10 VDC		
FKM	V	12	12 VDC		
PU	P	20	20 VDC		
		24	24 VDC		

Materials

Cartridge:

Weight: 0.30 kg (0.65 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.36 kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

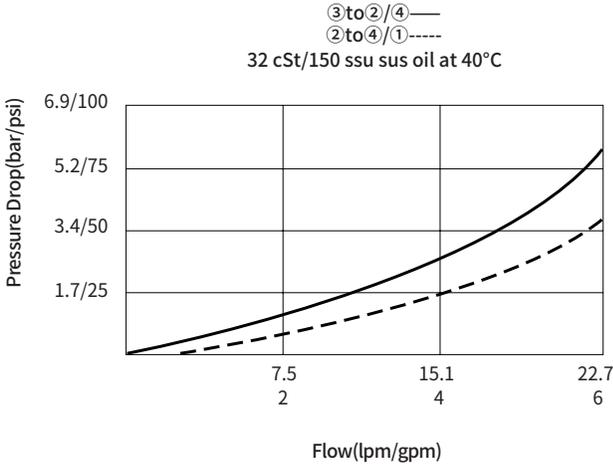
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector, with new application of E-type coil.

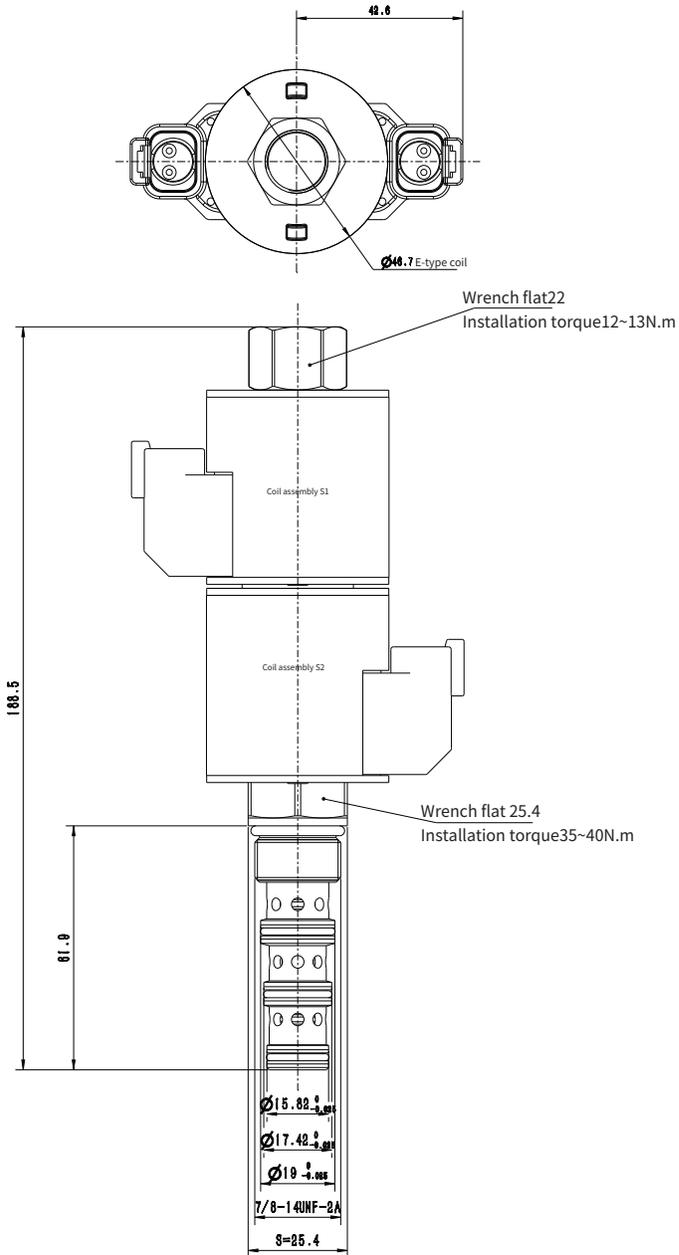
Technical Data

Rated Pressure	207bar (3000psi)	
Maximum Flow	23L/min (6.0gpm)	
Internal leakage	≤164ml/min @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.67A; 115VDC duration 0.18 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC10-4 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.51

SV12-2-20

Solenoid directional valve

Rated Pressure (bar)	240
Max. Flow(L/min)	113.6 (see performance curve)

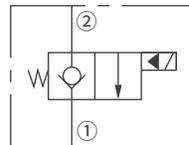
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- Emergency manual override option
- Optional IP69K waterproof Type E coil
- One-piece molded coil design
- High-efficiency and low-cost valve cavity

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Function Symbol



Description

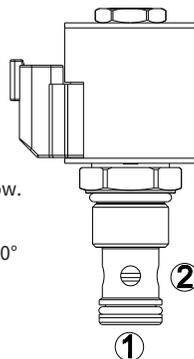
Solenoid-drive, 2-way, normally-closed, seat-type, hydraulic screw-in cartridge valve for low-leak load-holding or shut-off applications.

Working Principle

De-energised: acts as check valve, allows flow ① → ② and blocks reverse flow.

Energised: poppet lifts to open flow ② → ①; bidirectional flow permitted.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. In this position the valve remain open. To restore normal valve function press the button, rotate 180° clockwise, then release. The emergency override locks in this position.



Model Description

SV12-2-20		Standard coil voltage	Standard coil termination (VDC)
Model options			
None (blank)		0 No coil**	DS Double spade terminals
Manual override	M	10 10 VDC †	DG DIN 43650
Manual override	Y	12 12 VDC	DL Wire (2)
Manual override	J	24 24 VDC	DL/W Wire, with Weatherpak® Connector
Valve block oil port		36 36 VDC	DR Deutsch DT04-2P
Order plug-in components only	0	48 48 VDC	
SAE 10	10T	24 24 VAC	Standard coil termination (VAC)
SAE 12	12T	115 115 VAC	AG DIN 43650
SAE 16	16T	230 230 VAC	AP 1/2 Inch Wire conduit
3/4 Inch BSP*	6B	** Includes standard coil nut and coil partition plate	E-coil Terminal (VDC)
1 Inch BSP*	8B	† Only for DS, DW, or DL terminals.	ER Deutsch DT04-2P (IP69K rated)
Seal material		E-coil	EY Metri-Pack® 150 (IP69K rated)
NBR (standard)	N	10 10 VDC	Built-in diode coil available; Please consult the factory
FKM	V	12 12 VDC	
PU	P	20 20 VDC	
		24 24 VDC	

Materials

Cartridge:

Weight: 0.25 kg (0.55 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.57 kg (1.25 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

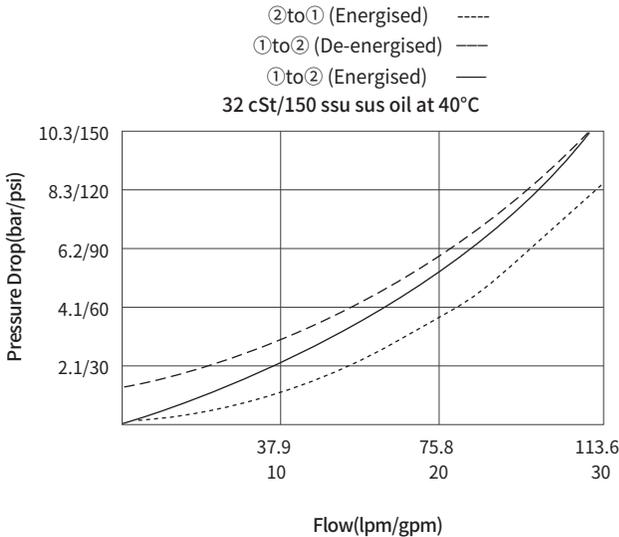
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector, with new application of E-type coil.

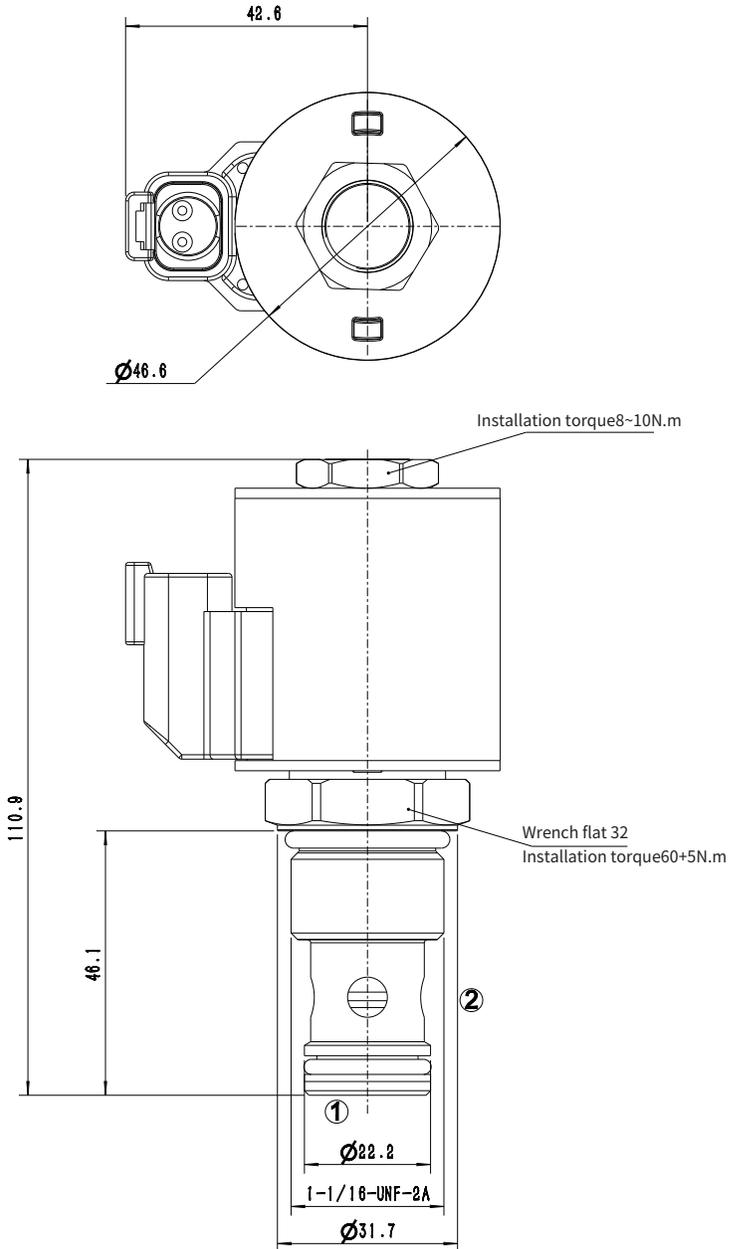
Technical Data

Rated Pressure	240 bar (3500 psi)	
Maximum Flow	113.6 L/min (3.0 gpm)	
Internal leakage	≤0.45ml/min (3cu. in./min) @240 bar(3500psi)	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VDC (Full-wave rectification) duration 0.85A
	D-type coil	12VDC duration 1.67A; 115VDC (Full-wave rectification) duration 0.18A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC12-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 100 °C	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.52

SV12-2-21

Solenoid directional valve

Rated Pressure (bar)	240
Max. Flow(L/min)	113.6 (see performance curve)

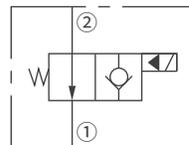
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Industry-common cavity
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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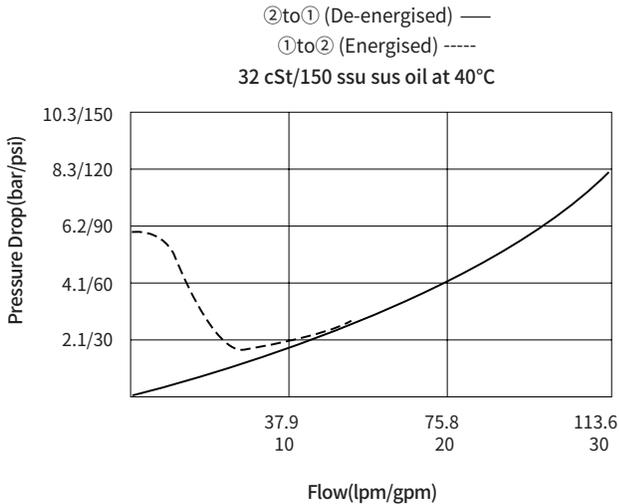
Function Symbol



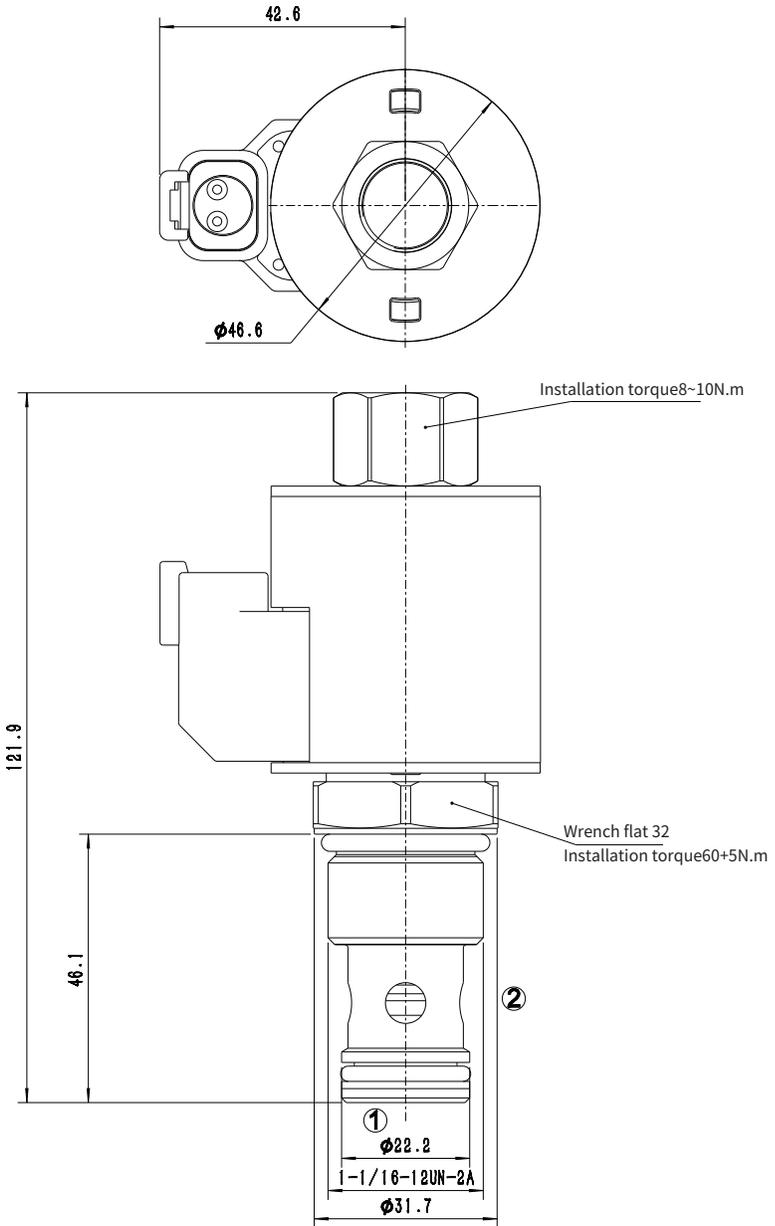
Technical Data

Rated Pressure	240 bar (3500 psi)	
Maximum Flow	113.6 L/min (3.0 gpm)	
Internal leakage	≤0.45mL/min (3cu. in./min) @240 bar(3500psi)	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VDC (Full-wave rectification) duration 0.85A
	D-type coil	12VDC duration 1.67A; 115VDC (Full-wave rectification) duration 0.18A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC12-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.53

SV12-2-22

Solenoid directional valve

Rated Pressure (bar)	240
Max. Flow(L/min)	113.6 (see performance curve)

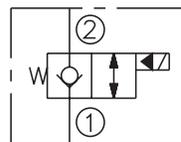
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- Emergency manual override option
- Optional IP69K waterproof Type E coil
- One-piece molded coil design
- High-efficiency and low-cost valve cavity

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Function Symbol



Description

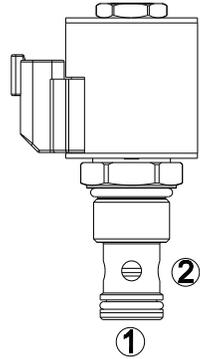
Solenoid-drive, 2-way, normally-closed, seat-type, hydraulic screw-in cartridge valve for low-leak load-holding or shut-off duty.

Working Principle

De-energised: acts as check valve, allows ① → ②, blocks reverse flow.

Energised: poppet lifts to open ② → ①; bidirectional flow permitted.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. In this position the valve remain open. To restore normal valve function press the button, rotate 180° clockwise, then release. The emergency override locks in this position.



Model Description

<p>SV12-2-22</p> <p>Model options</p> <p>None (blank)</p> <p>Manual override M</p> <p>Manual override Y</p> <p>Manual override J</p> <p>Valve block oil port</p> <p>Order plug-in components only 0</p> <p>SAE 10 10T</p> <p>SAE 12 12T</p> <p>SAE 16 16T</p> <p>3/4 Inch BSP* 6B</p> <p>1 Inch BSP* 8B</p> <p>Seal material</p> <p>NBR (standard) N</p> <p>FKM V</p>	<p>Standard coil voltage</p> <p>0 No coil**</p> <p>10 10 VDC †</p> <p>12 12 VDC</p> <p>24 24 VDC</p> <p>36 36 VDC</p> <p>48 48 VDC</p> <p>24 24 VAC</p> <p>115 115 VAC</p> <p>230 230 VAC</p> <p>** Includes standard coil nut and coil partition plate</p> <p>† Only for DS, DW, or DL terminals.</p> <p>E-coil</p> <p>10 10 VDC</p> <p>12 12 VDC</p> <p>20 20 VDC</p> <p>24 24 VDC</p>	<p>Standard coil termination (VDC)</p> <p>DS Double spade terminals</p> <p>DG DIN 43650</p> <p>DL Wire(2)</p> <p>DL/W Wire, with Weatherpak® Connector</p> <p>DR Deutsch DT04-2P</p> <p>Standard coil termination (VAC)</p> <p>AG DIN 43650</p> <p>AP 1/2 InchWire conduit</p> <p>E-coil Terminal (VDC)</p> <p>ER Deutsch DT04-2P (IP69K rated)</p> <p>EY Metri-Pack® 150 (IP69K rated)</p> <p>Built-in diode coil available; Please consult the factory</p>
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Materials

Cartridge:

Weight: 0.25 kg (0.55 lb); steel, working surfaces hardened; outer surface zinc-plated; D-sealing.

Standard valve block:

Weight: 0.57kg (1.25 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

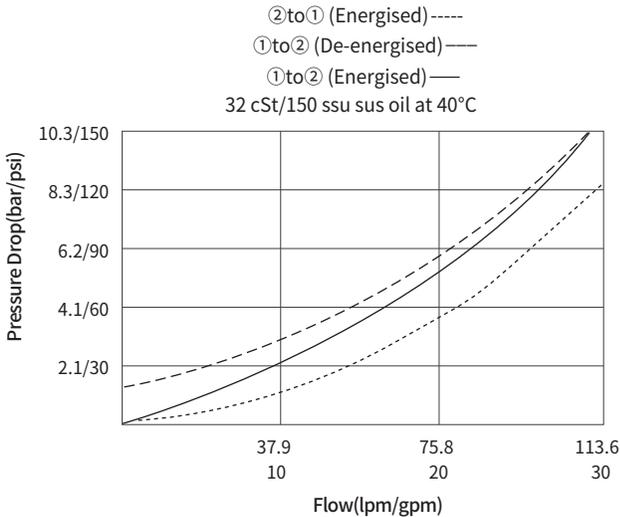
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

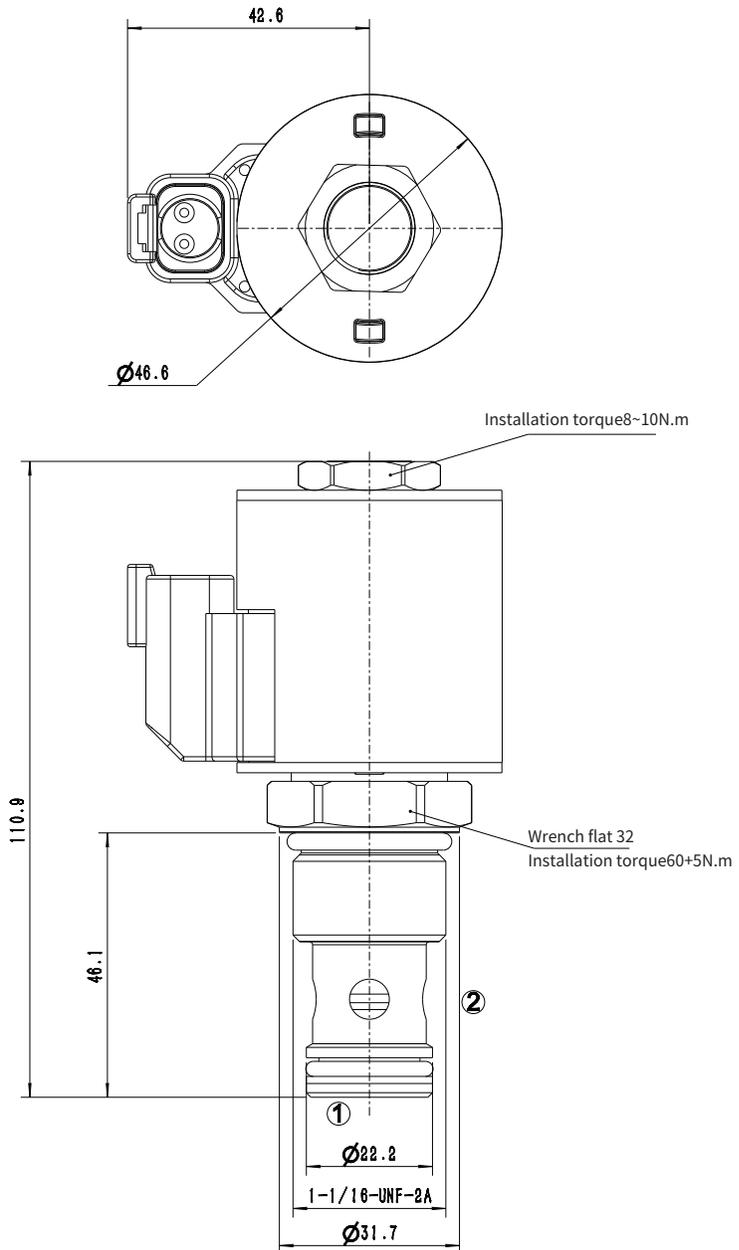
Technical Data

Rated Pressure	240 bar (3500 psi)	
Maximum Flow	113.6 L/min (3.0 gpm)	
Internal leakage	≤0.45mL/min (3cu. in./min) @240 bar(3500psi)	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VDC (Full-wave rectification) duration 0.85A
	Standard coil	12VDC duration 1.67A; 115VDC (Full-wave rectification) duration 0.18A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC12-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 100 °C	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.54

SV12-2-23

Solenoid directional valve

Features

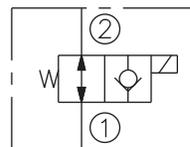
- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- Emergency manual override option
- Optional IP69K waterproof Type E coil
- One-piece molded coil design
- High-efficiency and low-cost valve cavity

Rated Pressure (bar)	240
Max. Flow(L/min)	113.6(see performance curve)

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Function Symbol

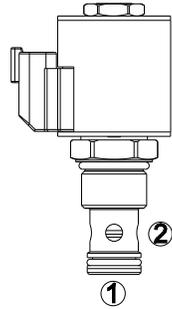


Description

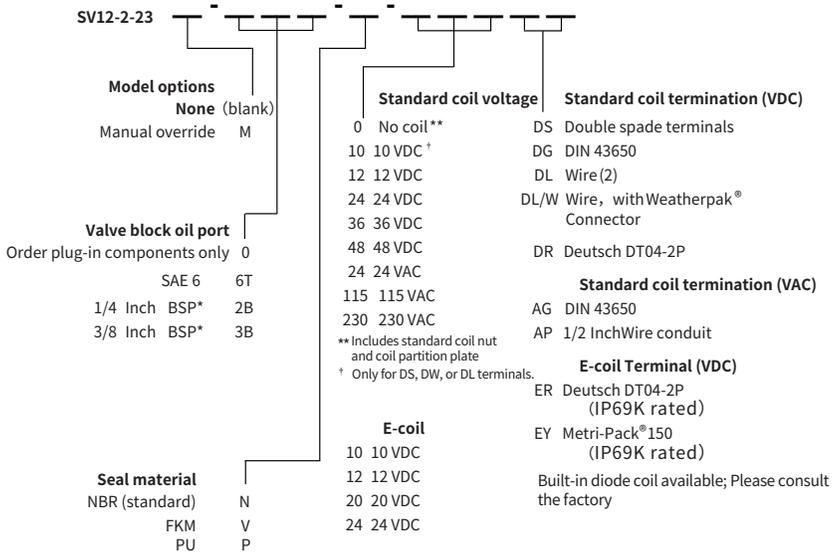
Solenoid-drive, 2-way, normally-open, seat-type, hydraulic screw-in cartridge valve for low-leak shut-off or load-holding duty.

Working Principle

De-energised: permits bidirectional flow ② ↔ ①.
 Energised: poppet closes to block ② → ①; flow ① → ② allowed once port ① pressure overcomes solenoid force (3.4–10.3 bar / 50–150 psi).
 Emergency manual override: depress and hold the override button.



Model Description



Materials

Cartridge:

Weight: 0.25 kg (0.55 lb); steel, working surfaces hardened; outer surface zinc-plated; D-sealing.

Standard valve block:

Weight: 0.57kg (1.25 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.27 kg (0.60 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

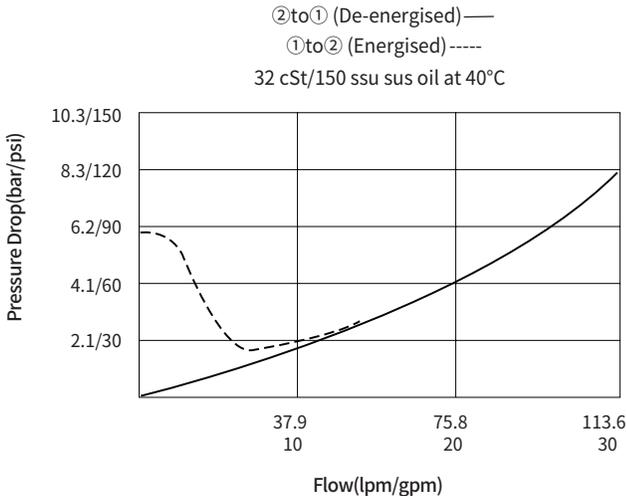
E-type coil:

Weight: 0.41 kg (0.9 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

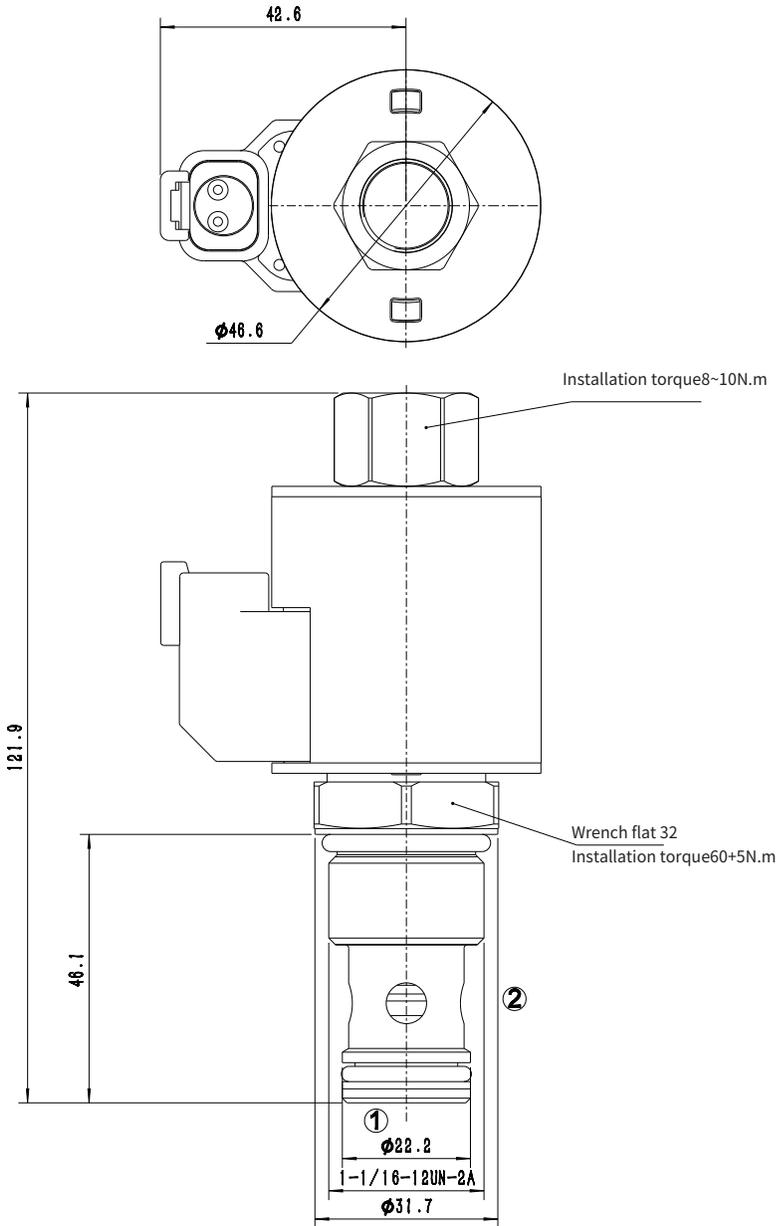
Technical Data

Rated Pressure	240bar (3500psi)	
Maximum Flow	113.6L/min (30gpm)	
Internal leakage	≤0.15mL/min (3cu. in./min) @240 bar(3500psi)	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration1.67A; 24VAC duration 0.18A
	D-type coil	12VDC duration1.7A; 115VDCduration0.85 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC12-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C(Polyurethane seal)	
	-40 to120°C (NBR seal)	
	-26 to204°C (FKM seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.55

SVD04-47D-S

Solenoid directional valve

Rated Pressure (bar)	320
Max. Flow(L/min)	30 (see performance curve)

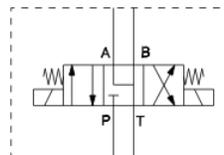
Features

- Direct-acting solenoid-operated directional spool valve
- As standard version
- Wet-type DC/AC solenoid with detachable coil
- Coil replaceable without draining oil
- Individual/manifold connection optional
- Compact construction

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Function Symbol



Description

Solenoid-drive, sub-plate 3-position, 4-way directional valve with direct-acting poppet.

Working Principle

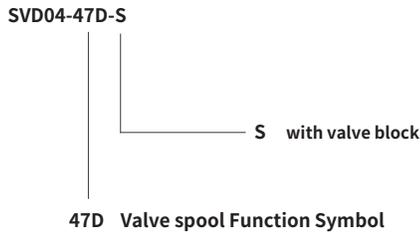
De-energised: blocks flow to P while allowing $A \rightarrow T$ or $B \rightarrow T$.

Coil 1 energised: permits $P \rightarrow A$ and $B \rightarrow T$.

Coil 2 energised: permits $P \rightarrow B$ and $A \rightarrow T$.



Model Description



Materials

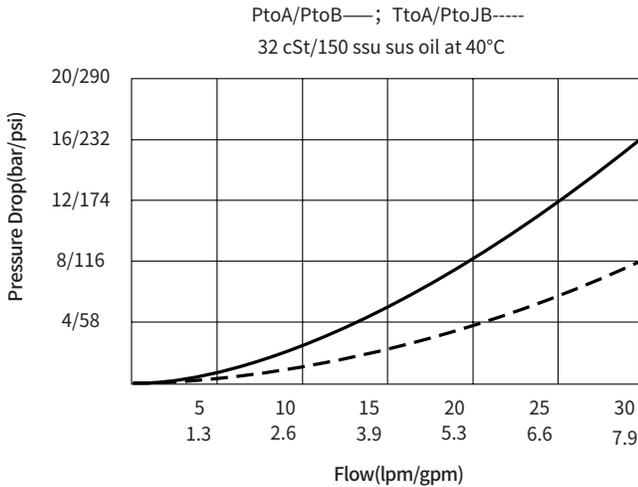
Cartridge:

Weight: 0.12 kg (0.26 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Technical Data

Rated pressure	320bar (4641psi)
Maximum flow	30L/min (8gpm)
Working medium	Hydraulic oil conforming to DIN 51524 power classes HL and HLP
Viscosity range	10 ~ 500mm ² /s
Temperature range	-30 ~ +10 °C (NBR seals)
Tightening torque	14+1 Nm(10.33 +0.74lbf.ft)
Valve mounting specification	Refer to outline drawing
Oil contamination level	ISO 4406 class 21/18/15

Performance Curve (insert type only)





SOLINER

2.56

XLSDCV-05

On/Off Solenoid Valve

Bore diameter	05
Rated Pressure (bar)	60
Max. Flow(L/min)	15

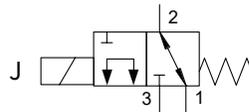
Features

- Rapid response
- Compact size
- Wet-type DC solenoid

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Function Symbol



(Contact our company for other specifications.)

Description

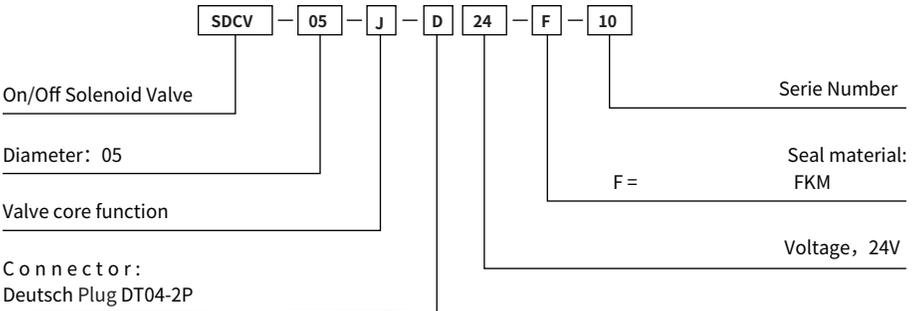
Direct-acting control, cartridge construction, specially designed for mobile machinery.

Working Principle

The SDCV-05 solenoid switch valve is a spool-type directional valve operated by a solenoid to control oil on/off and flow direction. When energised, the external power supply excites the coil; the wet-armature solenoid generates thrust which, via the push rod, shifts the spool to direct oil flow. When de-energised, the reset spring returns the spool to its initial position.



Model Description



Technical Data

General

Weight	0.235Kg
Installation methods	Optional.Recommended to install vertically,with the connector plug facing downward
MTTF _d	150 Years
Temperature	-30~80°C

Hydraulic

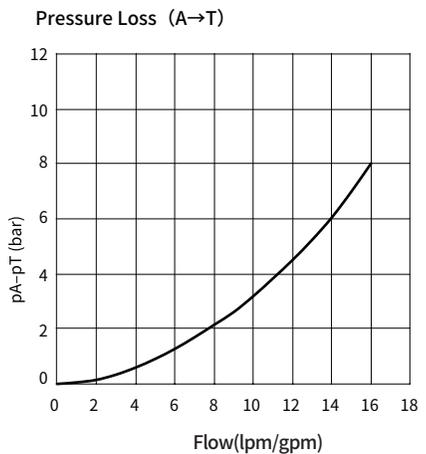
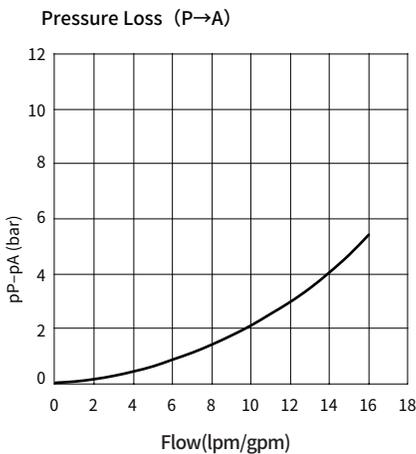
Maximum supply pressure	$P_p = 60\text{bar}$
Maximum back pressure	$P_r = 30\text{bar}$
Oil contamination level	The maximum contamination level of the hydraulic fluid shall be ISO 4406 20/18/15 or better, and NAS 1638 Class 9 or better
Working medium	Mineral oil conforming to DIN 51524
Working medium temperature range	-30~105°C
Leakage rate	< 100mL/min (de-energized)
	< 100mL/min (energized)
Filtration rating	140µm (P port)

Electrical

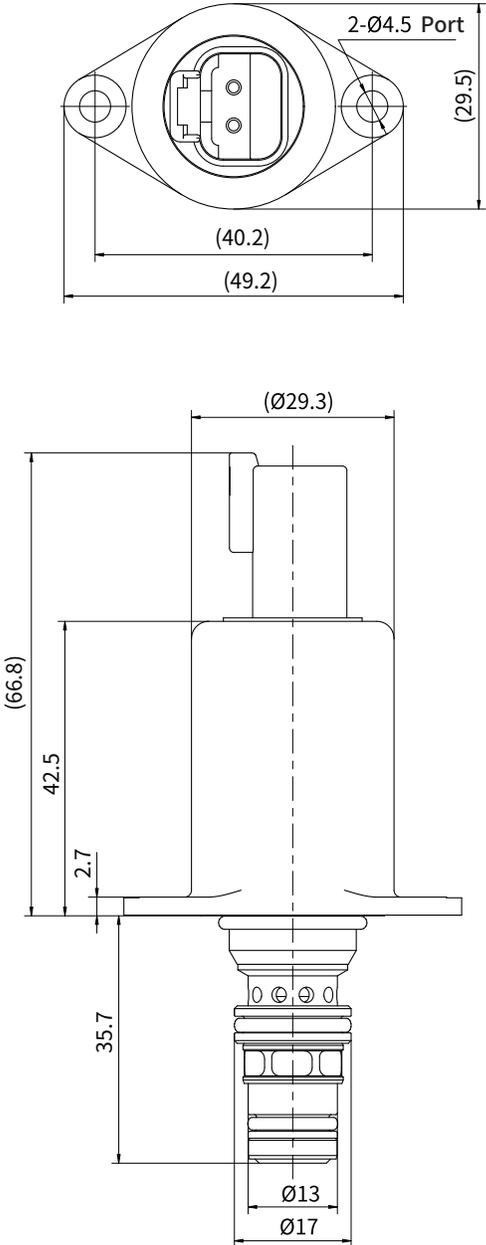
Working voltage (amplifier)	24 V
Coil resistance (20 °C)	34 Ω
Connector type	DT04-2P Deutsch (Makepolo)
Protection class	IP6K6/IPX9K
Response time	shift time <40ms
	return time <40ms

Performance Curve (insert type only)

• Flux Characteristic Curve



Outline Dimensions





SOLINER

2.57

XLSV08 -28MR.00

Solenoid valve

Rated Pressure (bar)	250
Max. Flow(L/min)	19 (see performance curve)

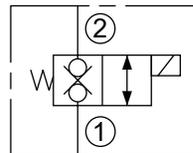
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof Type E coil

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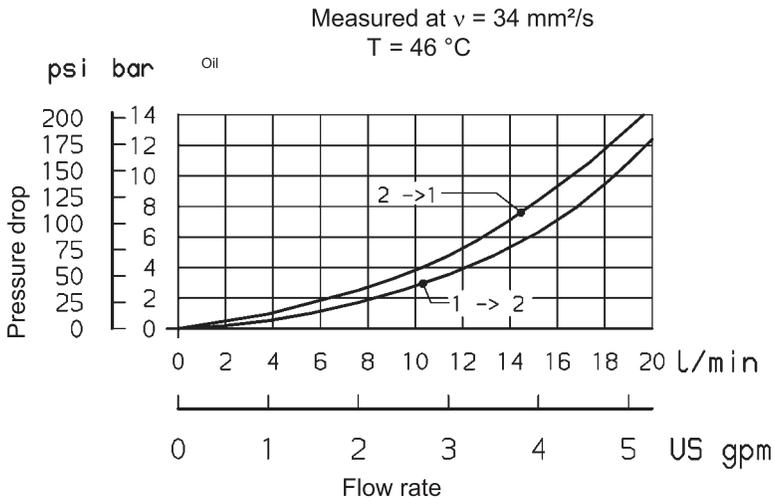
Function Symbol



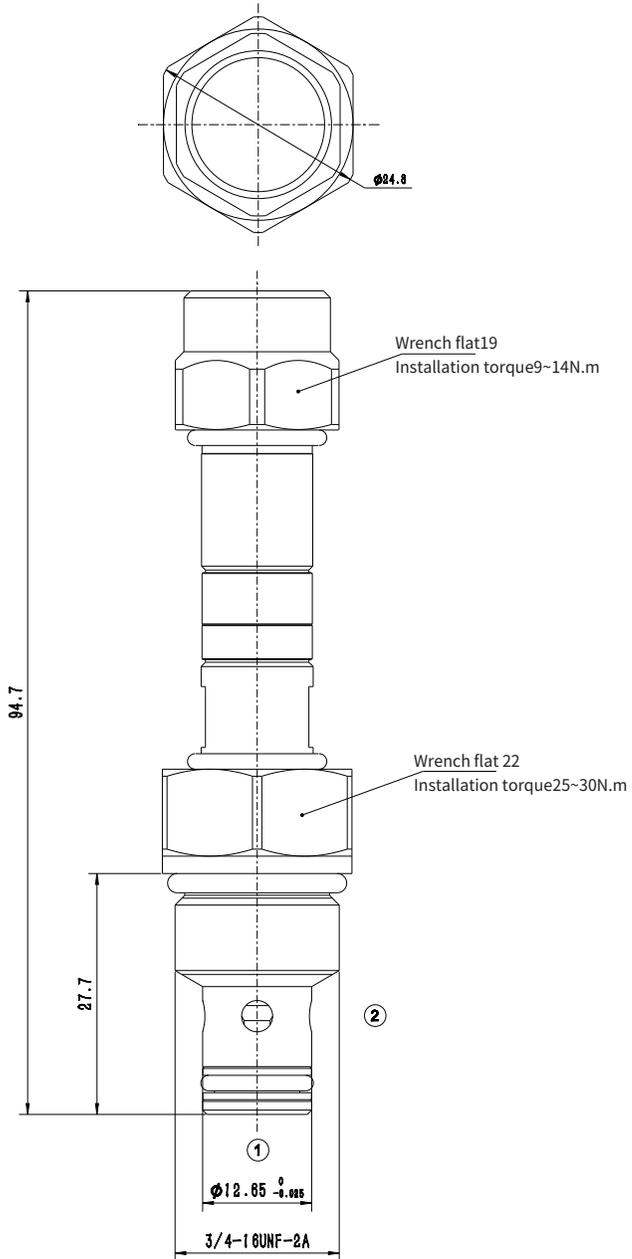
Technical Data

Rated Pressure	250bar (3600psi)	
Maximum Flow	19L/min (5.0gpm)	
Internal leakage	≤0.15mL/min (3cu. in./min) @207 bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration1.4A; 24VAC duration 0.7A
	D-type coil	12VDC duration1.2A; 115VDC duration0.13 A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to107°C (Polyurethane seal)	
	-40 to100°C (NBR seal)	
	-26 to204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.58

XLSV08 -28MR.M18.00

Solenoid valve

Rated Pressure (bar)	250
Max. Flow(L/min)	15 (see performance curve)

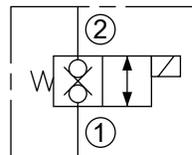
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid-drive, 2-way, normally-closed, pilot-operated seat-type, hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: blocks flow in both directions.

Energised: poppet opens to allow flow ② → ① or ① → ②.



Model Description

XLSV08-28MR.M18.00

<p>Model options</p> <p>None (blank)</p> <p>Manual override M</p>	<p>Standard coil voltage</p> <p>0 No coil**</p> <p>10 10 VDC †</p> <p>12 12 VDC</p> <p>24 24 VDC</p> <p>36 36 VDC</p> <p>48 48 VDC</p> <p>24 24 VAC</p> <p>115 115 VAC</p> <p>230 230 VAC</p> <p>**Includes standard coil nut and coil partition plate</p> <p>† Only for DS, DW, or DL terminals.</p>	<p>Standard coil termination (VDC)</p> <p>DS Double spade terminals</p> <p>DG DIN 43650</p> <p>DL Wire(2)</p> <p>DL/W Wire, with Weatherpak® Connector</p> <p>DR Deutch DT04-2P</p>
<p>Valve block oil port</p> <p>Order plug-in components only 0</p> <p>SAE 6 6T</p> <p>1/4 Inch BSP* 2B</p> <p>3/8 Inch BSP* 3B</p>	<p>E-coil</p> <p>10 10 VDC</p> <p>12 12 VDC</p> <p>20 20 VDC</p> <p>24 24 VDC</p>	<p>Standard coil termination (VAC)</p> <p>AG DIN 43650</p> <p>AP 1/2 InchWire conduit</p> <p>E-coil Terminal (VDC)</p> <p>ER Deutch DT04-2P (IP69K rated)</p> <p>EY Metri-Pack®150 (IP69K rated)</p> <p>Built-in diode coil available; Please consult the factory</p>
<p>Seal material</p> <p>NBR (standard) N</p> <p>FKM V</p> <p>PU P</p>		

Materials

Cartridge:

Weight: 0.18 kg (0.4 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.27kg (0.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

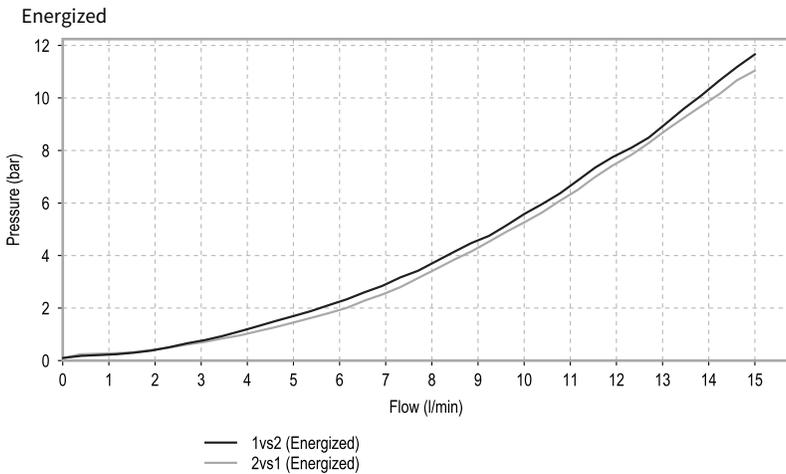
E-type coil:

Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated,with integral connector.

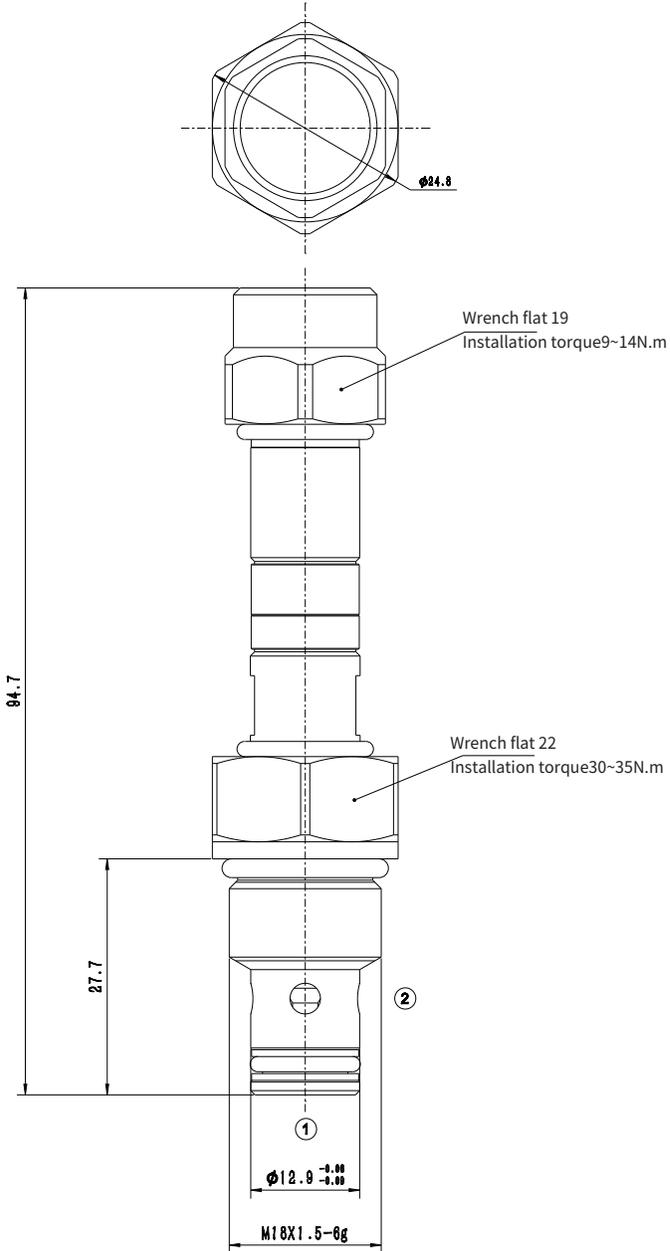
Technical Data

Rated Pressure	250bar (3600psi)	
Maximum Flow	15L/min (4.0gpm)	
Internal leakage	≤164ml/min (3cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VAC duration 0.7A
	D-type coil	12VDC duration 1.2A; 115VDC duration 0.13A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	VC08-2(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.59

XLSV08 -C20.00

Solenoid valve

Rated Pressure (bar)	350
Max. Flow(L/min)	38 (see performance curve)

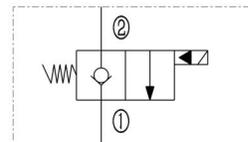
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid-drive, 2-way, normally-closed, pilot-operated seat-type, hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: acts as check valve, allows ① → ② and blocks ② → ①.

Energised: poppet lifts to open ② → ①; flow ① → ② is heavily restricted.



Model Description

XLSV08-C20.00

3/4-16UNF-2A

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.54kg (1.2 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

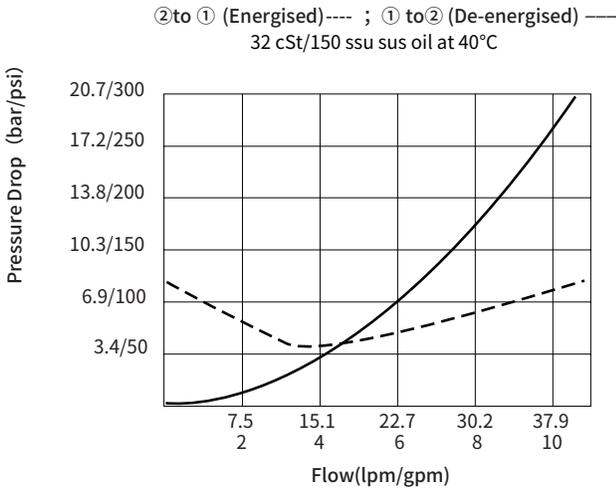
E-type coil:

Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

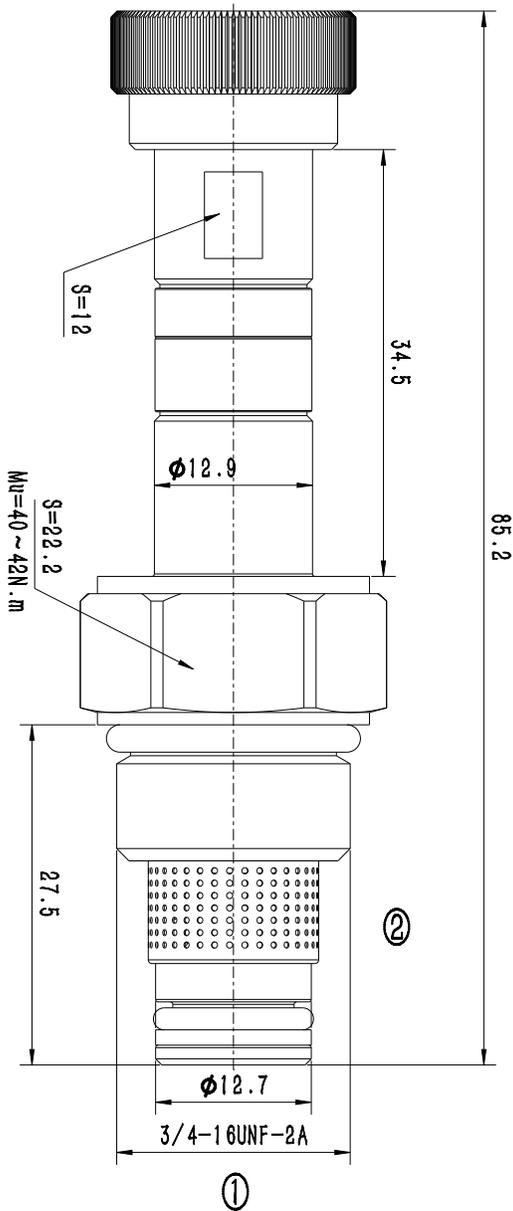
Technical Data

Rated pressure	350bar (5075psi)
Maximum flow	38L/min (10.1gpm)
Working medium	At 350 bar, the maximum internal leakage is 0.15 ml/min (3 drops/min)
Viscosity range	Hydraulic oil conforming to DIN 51524 standard power grades (HL, HLP)
Temperature range	-30 ~+10°C (NBR seals)
	-20 ~+120°C (NBR seals)
Tightening torque	30+2N.m (lbf.ft)
Valve mounting specification	CV08-2
Oil contamination level	ISO 4406, class 21/18/15級
viscosity range	10~500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.60

XLSV08-C20MR.00

Solenoid valve

Rated Pressure (bar)	350
Max. Flow(L/min)	38 (see performance curve)

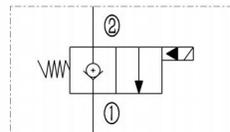
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- Industry-common cavity
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid-drive, 2-way, normally-closed, pilot-operated seat-type, hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: allows ① → ②; flow ② → ① is heavily restricted.

Energised: poppet closes to block ① → ②; once port ② pressure overcomes solenoid force (3.4–10.3 bar / 50–150 psi) flow ② → ① is permitted.



Model Description

XLSV08-C20.00MR.00

3/4-16 UNF-2A

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.54kg (1.2 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

E-type coil:

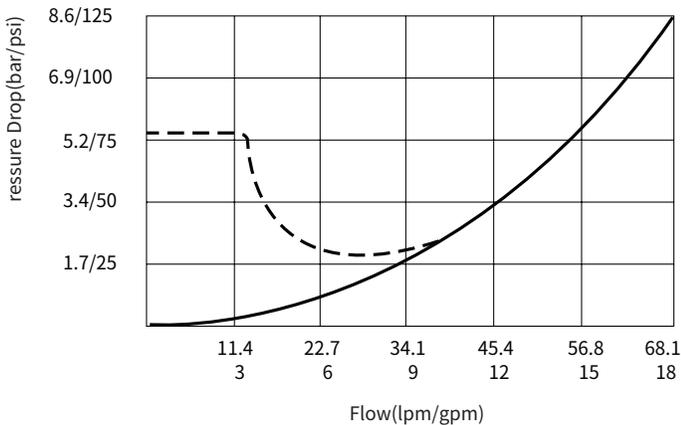
Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

Technical Data

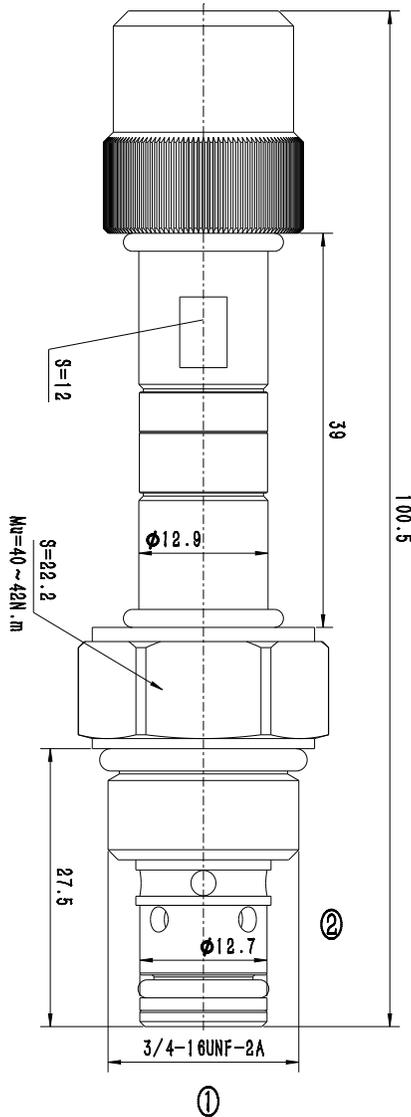
Rated pressure	350bar (5075psi)
Maximum flow	38L/min (10.1gpm)
Working medium	At 350 bar, the maximum internal leakage is 0.15 ml/min (3 drops/min)
Viscosity range	Hydraulic oil conforming to DIN 51524 standard power grades (HL, HLP)
Temperature range	-30 ~+10°C (NBR seals)
	-20 ~+120°C (NBR seals)
Tightening torque	30+2N.m(lbf.ft)
Valve mounting specification	CV08-2
Oil contamination level	ISO 4406, class21/18/15
viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)

②to①De-energised——
 ①to②Energised-----
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





SOLINER

2.61

XLSV08-C20MR.M18.00

Solenoid valve

Rated Pressure (bar)	207
Max. Flow(L/min)	18 (see performance curve)

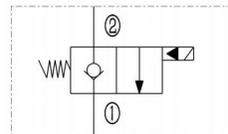
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- Industry-common cavity
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid-drive, 2-way, normally-open, seat-type, hydraulic screw-in cartridge valve for low-leak shut-off or load-holding duty

Working Principle

De-energised: acts as check valve, allows ① → ② and blocks reverse flow.

Energised: poppet lifts to open ② → ①; flow ① → ② is heavily restricted.

Emergency manual override: pull and hold the emergency button.



Model Description

XLSV08-C20MR.M18.00

3/4-16 UNF-2A

M18X1.5

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.54kg (1.2 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

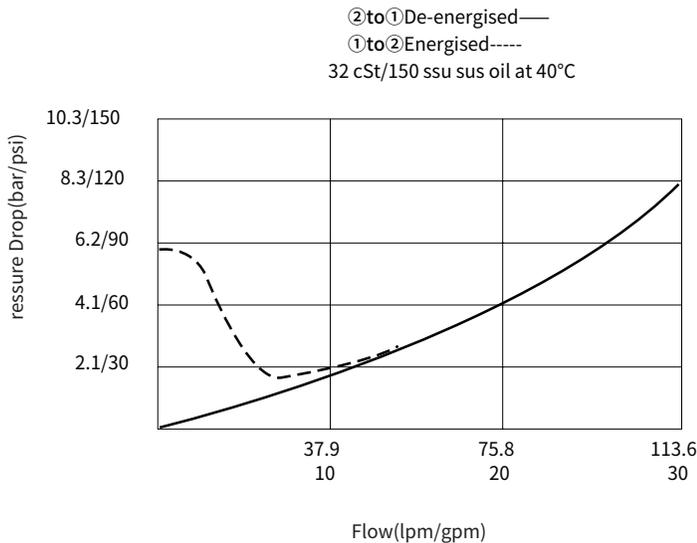
E-type coil:

Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

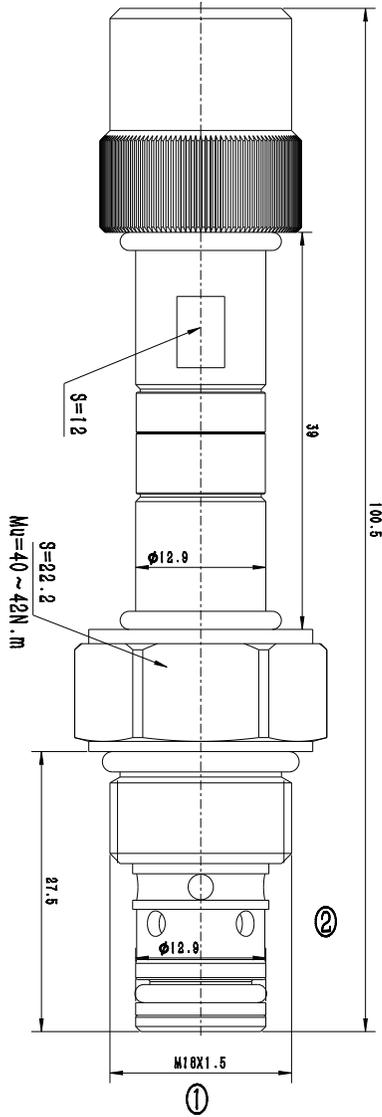
Technical Data

Rated pressure	207bar (3000psi)
Maximum flow	18L/min (4.8gpm)
Working medium	At 207bar, the maximum internal leakage is 0.15 ml/min (3 drops/min)
Viscosity range	Hydraulic oil conforming to DIN 51524 standard power grades (HL, HLP)
Temperature range	-30 ~+10°C (NBR seals)
	-20 ~+120°C (NBR seals)
Tightening torque	30+2N.m(lb.ft)
Valve mounting specification	CV08-2
Oil contamination level	ISO 4406, class21/18/15
viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.62

XLSV06020-20.00

Solenoid valve

Rated Pressure (bar)	207
Max. Flow(L/min)	40 (see performance curve)

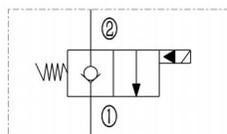
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- Industry-common cavity
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid-drive, 2-way, normally-closed, pilot-operated seat-type, hydraulic screw-in cartridge valve for shut-off or load-holding in low-flow circuits.

Working Principle

De-energised: acts as check valve, allows ① → ② and blocks ② → ①.

Energised: poppet lifts to open ② → ①; flow ① → ② is heavily restricted.

Emergency manual override operation: press and hold the button, rotate 180° counter-clockwise, then release. In this position the valve remain open. To restore normal valve function press the button, rotate 180° clockwise, then release. The emergency override locks in this position.



Model Description

XLSV06020-20.00

<p>Model options</p> <p>None (blank)</p> <p>Manual override M</p> <p>Valve block oil port</p> <p>Order plug-in components only 0</p> <p>SAE 6 6T</p> <p>1/4 Inch BSP* 2B</p> <p>3/8 Inch BSP* 3B</p> <p>Seal material</p> <p>NBR (standard) N</p> <p>FKM V</p> <p>PU P</p>	<p>Standard coil voltage</p> <p>0 No coil**</p> <p>10 10 VDC †</p> <p>12 12 VDC</p> <p>24 24 VDC</p> <p>36 36 VDC</p> <p>48 48 VDC</p> <p>24 24 VAC</p> <p>115 115 VAC</p> <p>230 230 VAC</p> <p>** Includes standard coil nut and coil partition plate</p> <p>† Only for DS, DW, or DL terminals.</p> <p>E-coil</p> <p>10 10 VDC</p> <p>12 12 VDC</p> <p>20 20 VDC</p> <p>24 24 VDC</p>	<p>Standard coil termination (VDC)</p> <p>DS Double spade terminals</p> <p>DG DIN 43650</p> <p>DL Wire (2)</p> <p>DL/W Wire, with Weatherpak® Connector</p> <p>DR Deutsch DT04-2P</p> <p>Standard coil termination (VAC)</p> <p>AG DIN 43650</p> <p>AP 1/2 Inch Wire conduit</p> <p>E-coil Terminal (VDC)</p> <p>ER Deutsch DT04-2P (IP69K rated)</p> <p>EY Metri-Pack® 150 (IP69K rated)</p> <p>Built-in diode coil available; Please consult the factory</p>
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Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.54kg (1.2 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

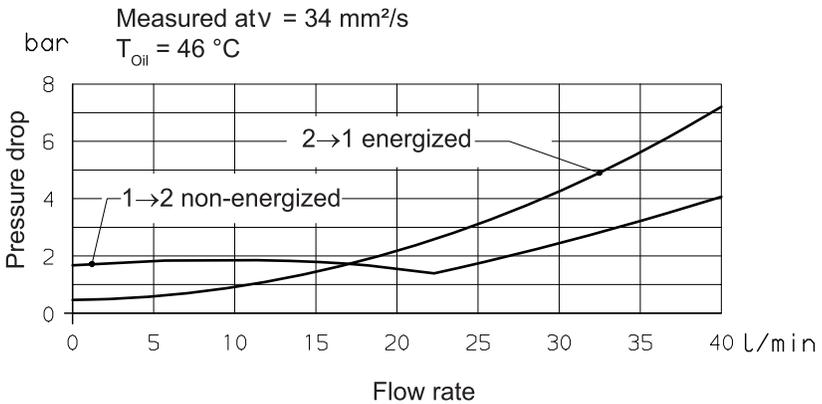
E-type coil:

Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

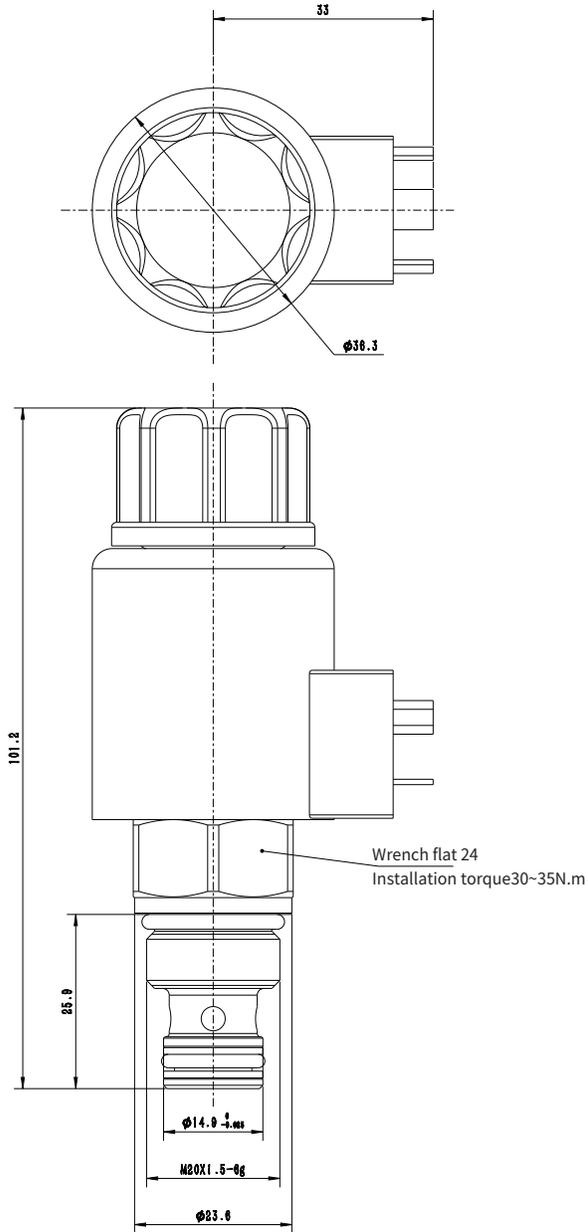
Technical Data

Rated Pressure	210bar (3000psi)	
Maximum Flow	40L/min (10.60gpm)	
Internal leakage	≤0.15ml/min (3cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C initial current of the timing coil	E-type coil	12VDC duration 1.4A; 24VAC duration 0.7A
	D-type coil	12VDC duration 1.2A; 115VDC duration 0.13A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	06020(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.63

XLSV06020-28.00

Solenoid valve

Rated Pressure (bar)	250
Max. Flow(L/min)	19 (see performance curve)

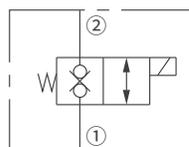
Features

- Continuous-duty rated solenoid coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- High-efficiency wet-armature construction
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- Optional IP69K waterproof “E” coil

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Function Symbol



Description

Solenoid-drive, 2-way, normally-closed, direct-acting seat-type, bi-directional shut-off, hydraulic screw-in cartridge valve for low-leak load-holding duty.

Working Principle

De-energised: blocks flow in both directions.

Energised: poppet opens to allow flow ② → ① or ① → ②.



Model Description

XLSV06020-28.00			
Model options		Standard coil voltage	Standard coil termination (VDC)
None (blank)		0 No coil**	DS Double spade terminals
Manual override M		10 10 VDC †	DG DIN 43650
		12 12 VDC	DL Wire (2)
		24 24 VDC	DL/W Wire, with Weatherpak® Connector
		36 36 VDC	DR Deutsch DT04-2P
		48 48 VDC	
Valve block oil port		24 24 VAC	Standard coil termination (VAC)
Order plug-in components only 0		115 115 VAC	AG DIN 43650
SAE 6 6T		230 230 VAC	AP 1/2 InchWire conduit
1/4 Inch BSP* 2B			
3/8 Inch BSP* 3B			
		** Includes standard coil nut and coil partition plate	E-coil Terminal (VDC)
		† Only for DS, DW, or DL terminals.	ER Deutsch DT04-2P (IP69K rated)
			EY Metri-Pack® 150 (IP69K rated)
Seal material		E-coil	Built-in diode coil available; Please consult the factory
NBR (standard) N		10 10 VDC	
FKM V		12 12 VDC	
PU P		20 20 VDC	
		24 24 VDC	

Materials

Cartridge:

Weight: 0.18 kg (0.40 lb); steel, working surfaces hardened; outer surface zinc-plated; D-sealing.

Standard valve block:

Weight: 0.16 kg (0.35 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

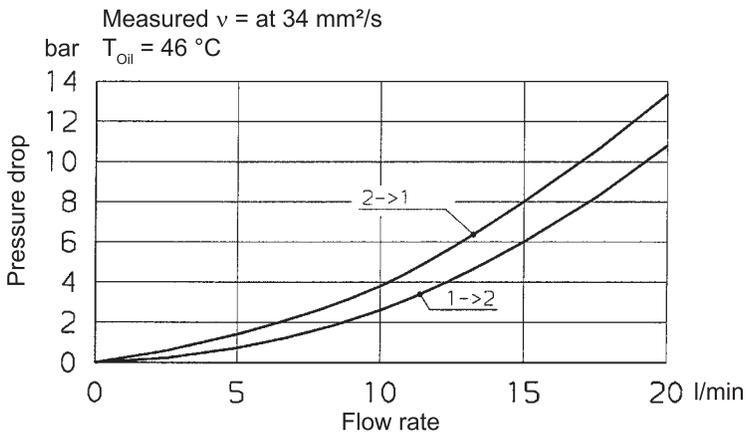
E-type coil:

Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated, with integral connector.

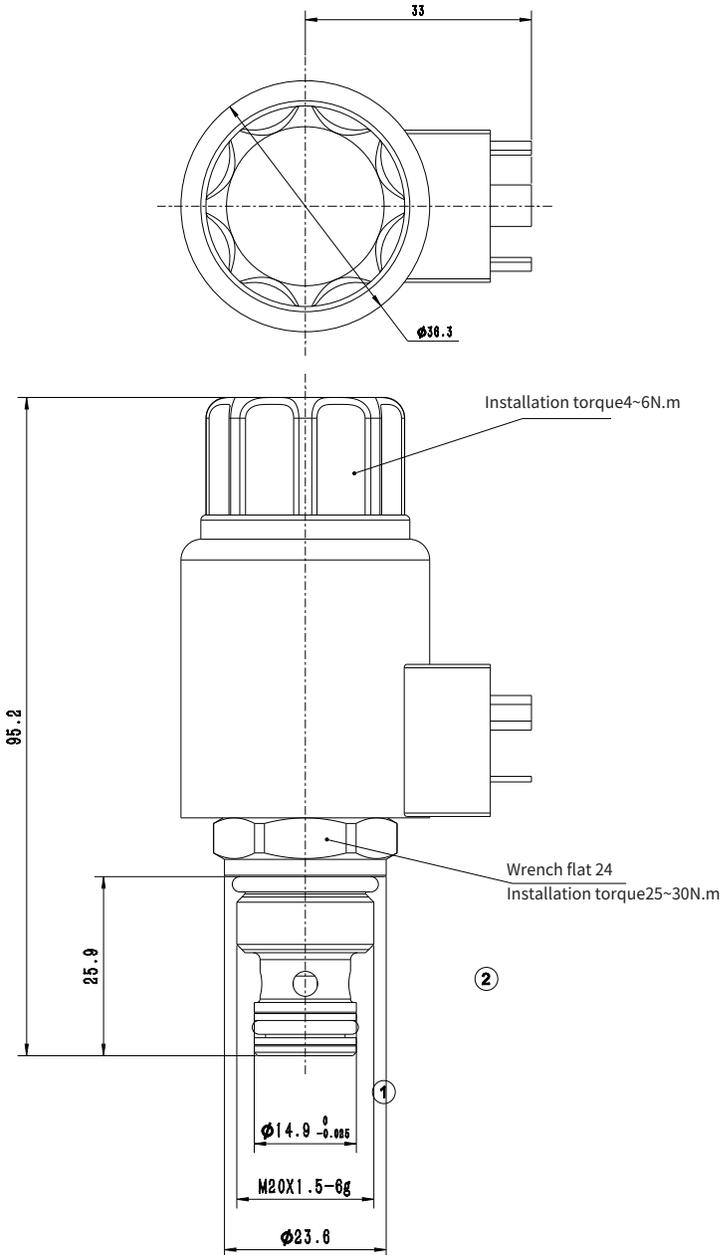
Technical Data

Rated Pressure	250bar (3600psi)	
Maximum Flow	19L/min (5.0gpm)	
Internal leakage	≤0.15ml/min (3cu. in./min) @207bar	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	E-type coil	12VDC duration 1.7A; 24VAC duration 0.85A
	D-type coil	12VDC duration 1.7A; 115VDC (Full-wave rectification) duration 0.18A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	06020(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-54 to 107°C (Polyurethane seal)	
	-40 to 100°C (NBR seal)	
	-26 to 204°C (FKM seal)	
Fluid contamination	Minimum fluid cleanliness: ISO 4406 18/16/13, For longer life recommend: ISO 4406 15/13/11	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.64

XLSVM081-40.00

Solenoid valve

Rated Pressure (bar)	350
Max. Flow(L/min)	25 (see performance curve)

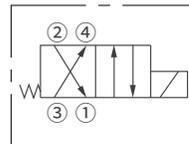
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

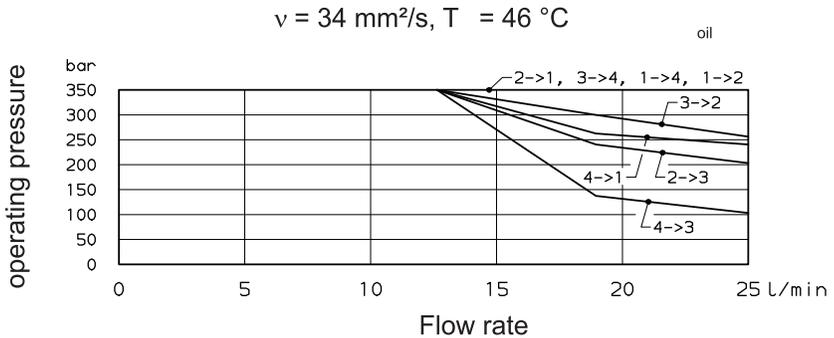
Function Symbol



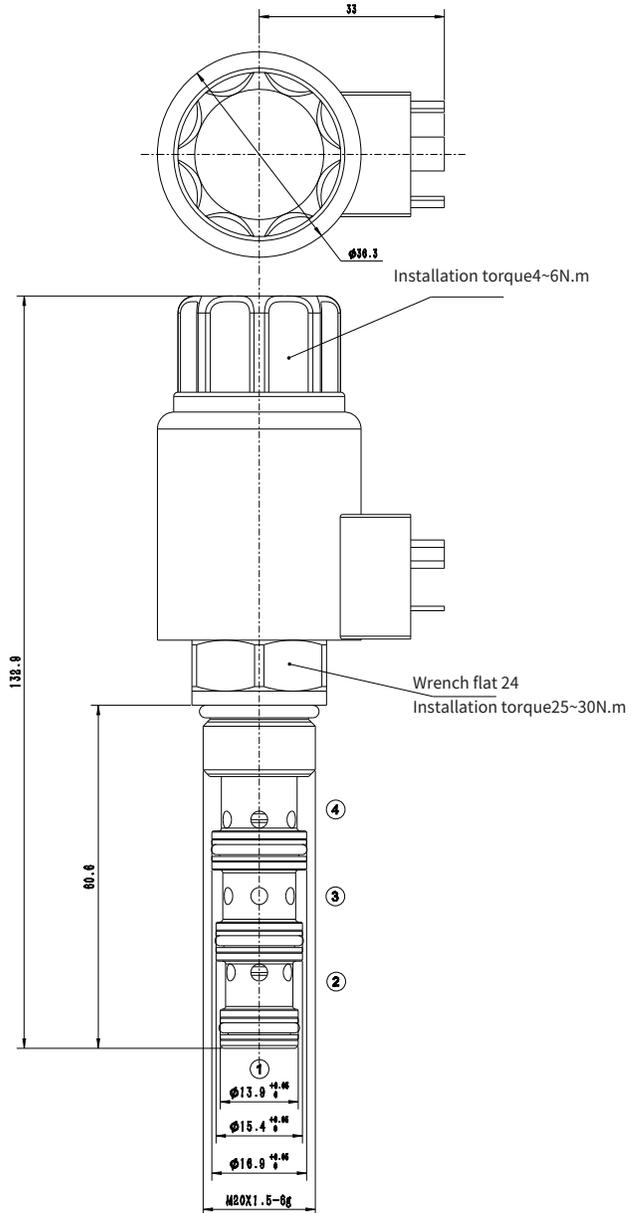
Technical Data

Rated Pressure	350bar (5100psi)	
Maximum Flow	25L/min (6.6gpm)	
Internal leakage	≤82ml/min (5cu. in./min) @210bar(5075 psi)	
Coil rated load	Continuous operating within 85 % – 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration1.2A; 115VAC duration 0.13A
	E-type coil	12VDC duration1.4A; 24VDCduration0.7A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	08140See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to120°C (NBR seal)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

2.65

XLWK10Y-01-C

Electromagnetic directional valve

Rated Pressure (bar)	350
Max. Flow(L/min)	32 (see performance curve)

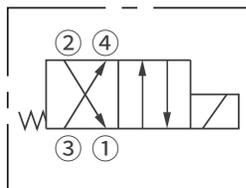
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

Contents

Description	02
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Outline Dimensions	04

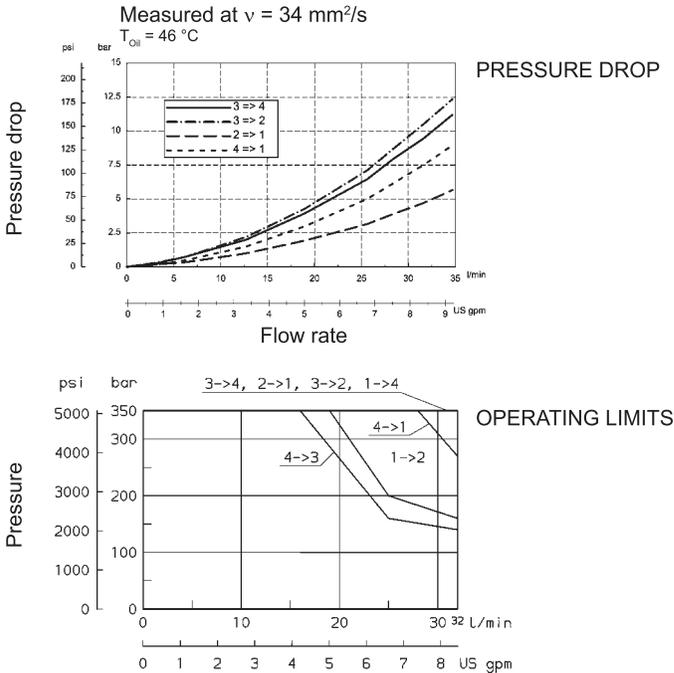
Function Symbol



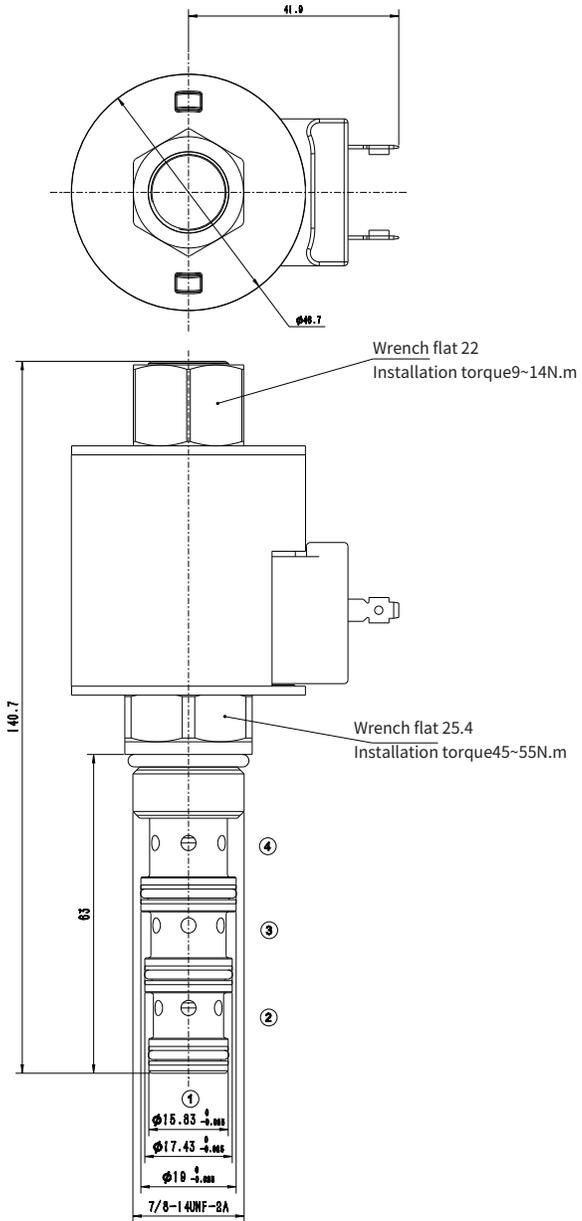
Technical Data

Rated Pressure	350bar (5100psi)	
Maximum Flow	32L/min (6.6gpm)	
Internal leakage	≤82ml/min (5cu. in./min) @207bar(3000 psi)	
Coil rated load	Continuous operating within 85 % - 115 % of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration1.67A; 115VAC duration 0.18A
	E-type coil	12VDC duration1.7A; 24VDCduration0.85A
Minimum pull-in voltage	207bar: 85 % of nominal voltage	
Cavity detail	FC10-4(See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to120°C (NBR seal)	

Performance Curve (insert type only)



Outline Dimensions



3. Electronic Proportional Valve

3.1	RV08-36-S Stackable electro-proportional relief valve	284-287
3.2	SP08-2-20 Proportional solenoid valve	288-293
3.3	XLPPRV-05 Electro-Proportional Pressure-Reducing Valve	294-299
3.4	XLPV70-30A Proportional Flow Control Valve	300-303
3.5	XLRBAN-XWM Reverse-proportional relief valve	304-307
3.6	XLRBAP-XWN Direct-proportional relief valve	308-311



SOLINER

3.1

RV08-36-S

Stackable electro-proportional relief valve

Rated Pressure (bar)	315
Max. Flow(L/min)	40 (see performance curve)

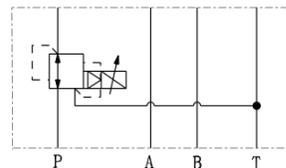
Features

- Stackable mounting
- Prevents spring set / ensures springs cannot be bottomed
- Fast, smooth response to pressure changes
- Compact construction

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Stackable electro-proportional relief valve, pressure-reducing type.

Working Principle

In steady state permits free flow from P; when pressure exceeds the set value the spool shifts to limit outlet pressure at P, with proportional electrical control of relief setting.



Model Description

RV08-36-S

With valve **S**
block

Materials

Cartridge:

Weight: 0.8 kg (1.8 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

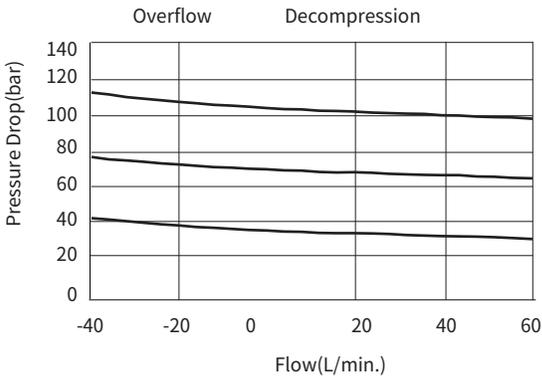
Standard valve block:

Weight: 0.6 kg (1.3 lb); anodized high-strength aluminum alloy, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

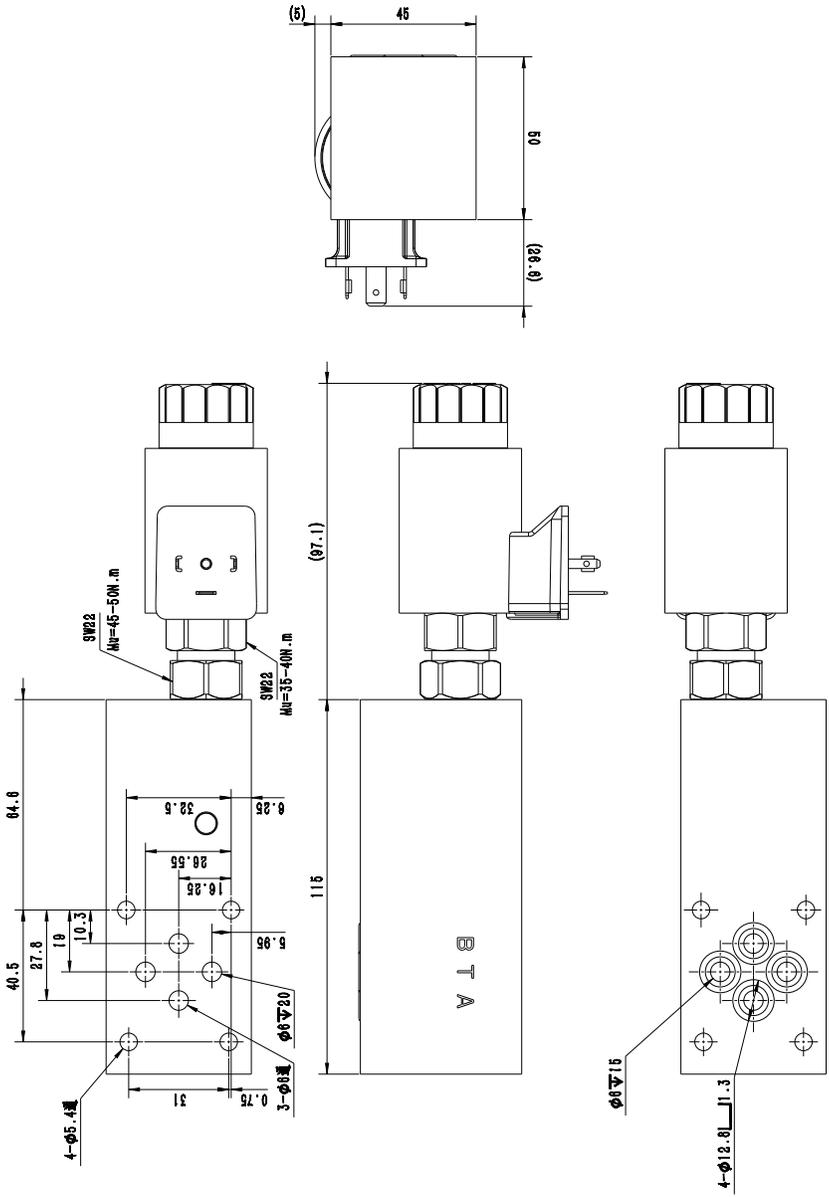
Technical Data

Rated Pressure	315 bar (4570 psi)
Maximum Flow	40 L/min (10.6 gpm)
Internal leakage	≤ 25 ml/min (5drops/min) @ 80%Opening pressure
Spring pressure adjustment range	7-210bar (Preset 207bar)
Installation specification	See outline drawing
Working medium	Mineral oil or lubricating synthetic oil
Fluid contamination	7.4 to 420 mm ² /s
Temperature range	-40 to 120 °C (NBR sealing)

Performance Curve (insert type only)



Outline Dimensions





SOLINER

3.2

SP08-2-20

Proportional solenoid valve

Rated Pressure (bar)	250
Max. Flow(L/min)	22 (see performance curve)

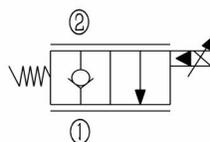
Features

- Industry-common cavity
- Continuous-duty rated coil
- Emergency manual override option
- High-efficiency wet-armature construction
- Optional IP69K waterproof “E” coil

Contents

Description	02
Working principle	02
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Outline Dimensions	04

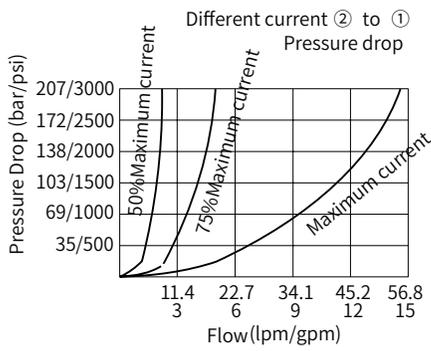
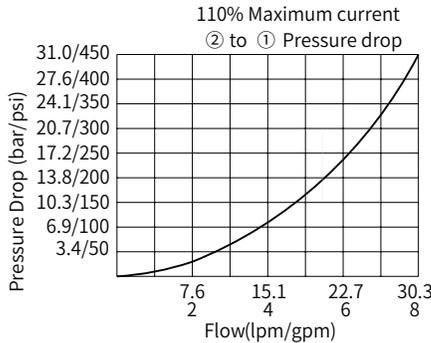
Function Symbol

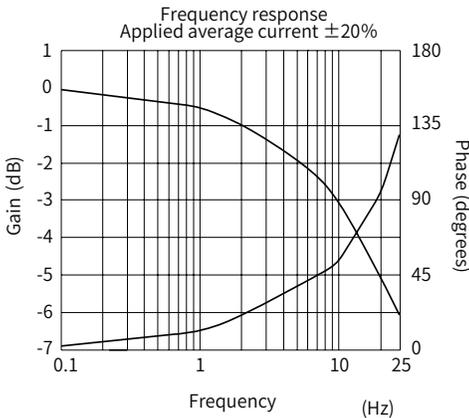
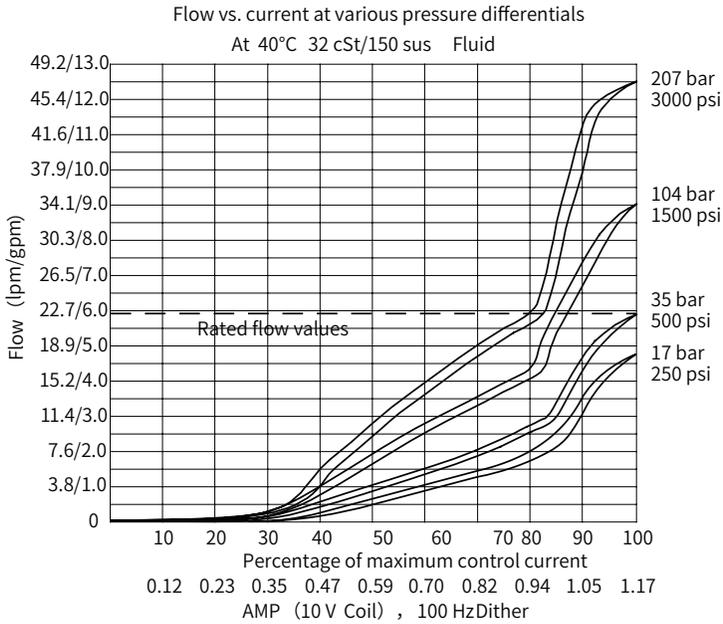


Technical Data

Rated Pressure	250 bar (3625 psi)	
Maximum Flow	22 L/min (5.8 gpm)	
Internal leakage	≤0.25mL/min (5cu. in./min) @250 bar	
Coil rated load	Continuous operating within 85% – 115% of nominal voltage	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC (Full-wave rectification) duration 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectification) duration 0.7A
Minimum pull-in voltage	250bar: 85% of nominal voltage	
Cavity detail	VC08-2 (See the technical reference materials for details)	
Working medium	Mineral oil or lubricating synthetic oil	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 120 °C	

Performance Curve (insert type only)

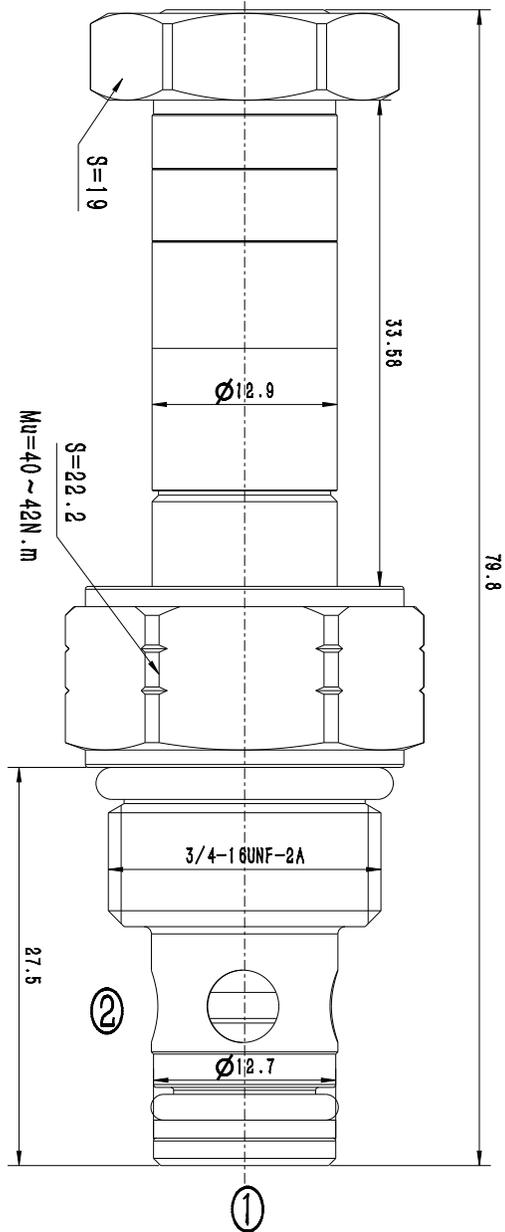




Recommended controller

Input signal with 12V coil	DIN Coil mounting	PCB	Metal enclosure	DIN rail mounting
0-5 VDC	7114950	4000046	4000049	4000136
0-10 VDC	4000070	4000141	4000124	4000137
4-20 mA	4000123	4000143	4000130	4000139
PWM	—	4000144	4000133	4000140
with 24V coil				
0-5 VDC	4000161	4000194	4000174	4000136
0-10 VDC	4000165	4000141	4000182	4000137
4-20 mA	4000169	4000143	4000186	4000139
PWM	—	4000144	4000133	4000140

Outline Dimensions







3.3

XLPPRV-05

Electro-Proportional Pressure-Reducing Valve

Nominal diameter	05
Rated Pressure Drop (bar)	60
Rated Adjustment Pressure Drop (bar)	32
Rated Flow (L/min)	10

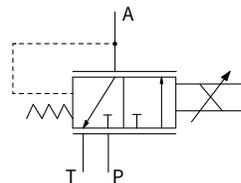
Features

- Rapid response
- Compact construction
- Wet-type DC solenoid

Contents

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Working principle	02
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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Direct-acting control, cartridge construction, specially designed for mobile machinery.

Working Principle

Type PPRV-05 electro-proportional pressure-reducing valve proportionally regulates pressure at port A in accordance with the current supplied to the solenoid, independent of pressure at supply port P.

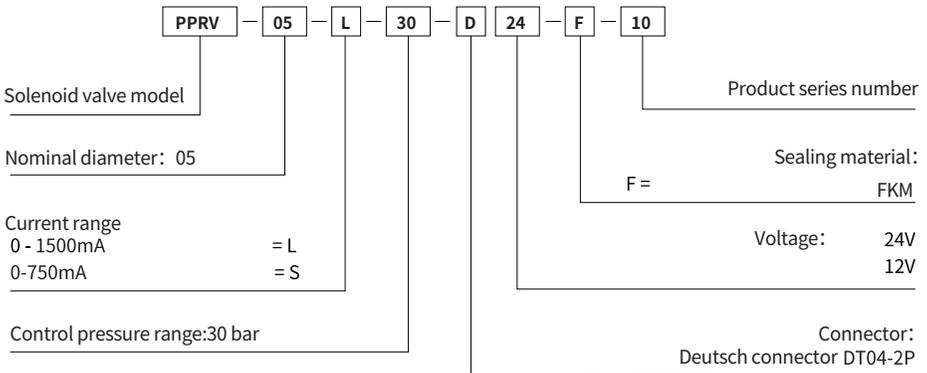
When no current is applied to the solenoid, supply port P is blocked and control port A is connected to tank port T.

When current is applied to the solenoid, port P connects to port A and tank port T is blocked; pressure at port A increases proportionally with the control current.

If, after current stabilisation, pressure at port A continues to rise due to external forces, supply port P is re-blocked and port A is momentarily connected to tank port T until port A pressure drops back to the required level, whereupon the valve returns to the P-to-A, T-blocked condition.



Model Description



Technical Data

General

Weight	0.235Kg
Installation methods	Optional.Recommended to install vertically,with the connector plug facing downward
MTTF _d	150 Years
Temperature	-30~80°C

Hydraulic

Maximum supply pressure	P _p = 60bar
Maximum back pressure	P _T = 30bar
Maximum back pressure	P _A = 32bar
Hysteresis	<4% of max. working pressure at 180Hz PWM dithe
Oil contamination level	The maximum contamination level of the hydraulic fluid shall be ISO 4406 20/18/15 or better, and NAS 1638 Class 9 or better
Working medium	Mineral oil conforming to DIN 51524
Working medium temperature range	-30~105°C
Leakage rate	< 70mL/min (de-energized)
	< 300mL/min (energized)
Filtration rating	140µm (P port)

Electrical

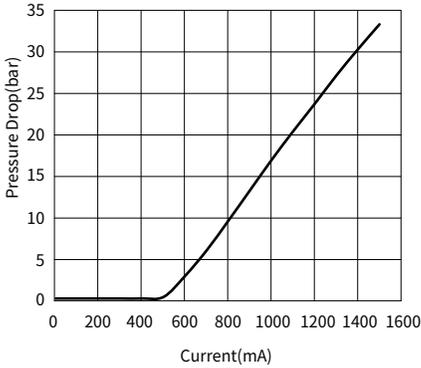
Working voltage (amplifier)	12 V	24 V	24 V
Maximum control current	1500mA	1300mA	750mA
Coil resistance (20°C)	5 Ω	9 Ω	24 Ω
Control mode	recommended current: PWM 130-200Hz		
Control mode	DT04-2P Deutsch (Deutsch)		
Protection class	IP6K6/IPX9K		
Protection class	shift time <40ms		
	return time <40ms		

Performance Curve (insert type only)

• Current- Pressure Characteristic Curve

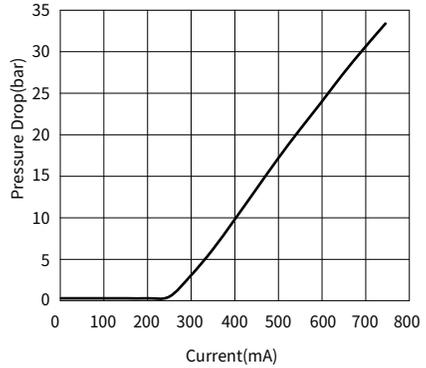
P-I Curve

PPRV-05-L



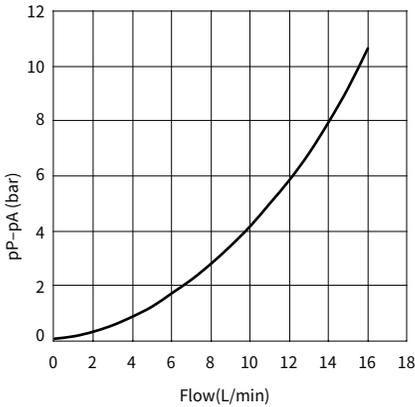
P-I Curve

PPRV-05-S

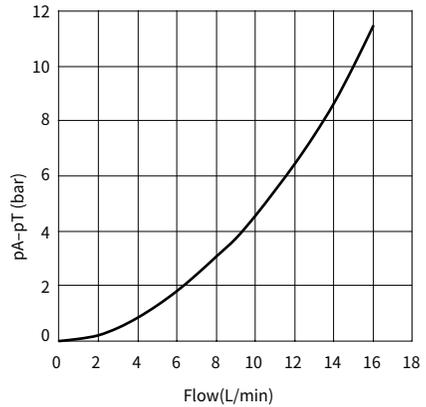


• Flux Characteristic Curve

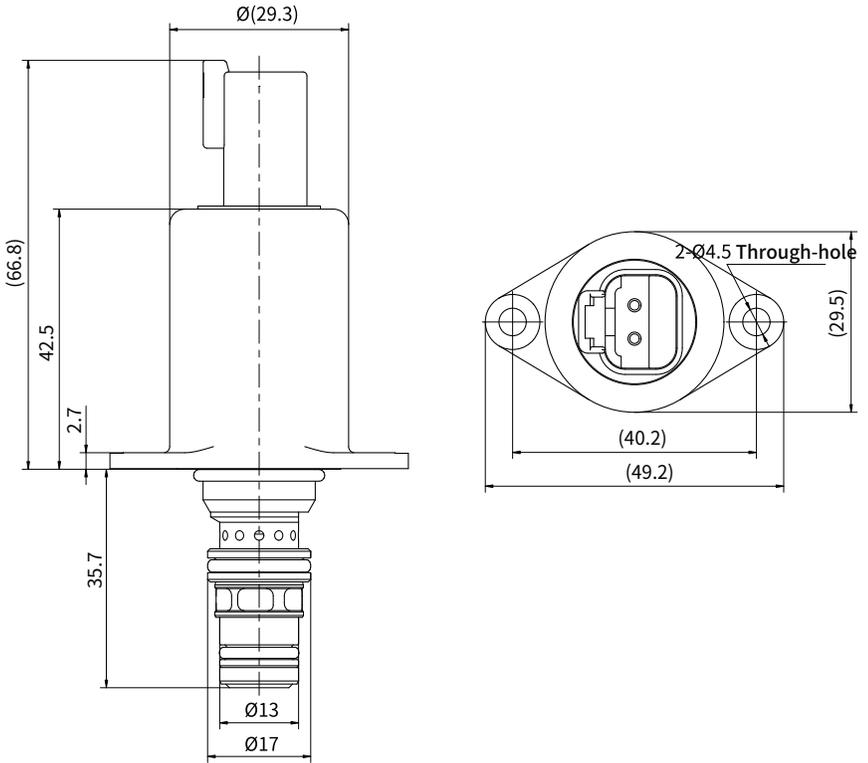
Pressure Loss (P→A)



Pressure Loss (A→T)



Outline Dimensions







SOLINER

3.4

XLPV70-30A

Proportional Flow Control Valve

Rated Pressure (bar)	240 (Port 1)
Max. Flow(L/min)	30 (Port 2 open)
	28 (Port 2 blocked)

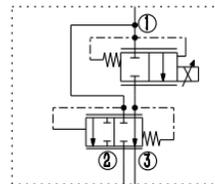
Features

- Excellent linear and hysteresis characteristics
- Hardened valve core and spool for long life
- Optional solenoid coil voltages and terminations
- High-efficiency wet-armature construction

Contents

Description	02
Working principle	02
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Outline Dimensions	04

Function Symbol



Description

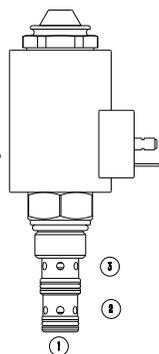
Solenoid-drive, electrically variable, 3-way, pressure-compensated, spool-type, normally-closed proportional flow control valve.

Functions as a priority flow regulator with pressure-compensated regulated and bypass flow; when bypass line (port ②) is blocked, it also serves as a throttling, 2-way, pressure-compensated flow regulator.

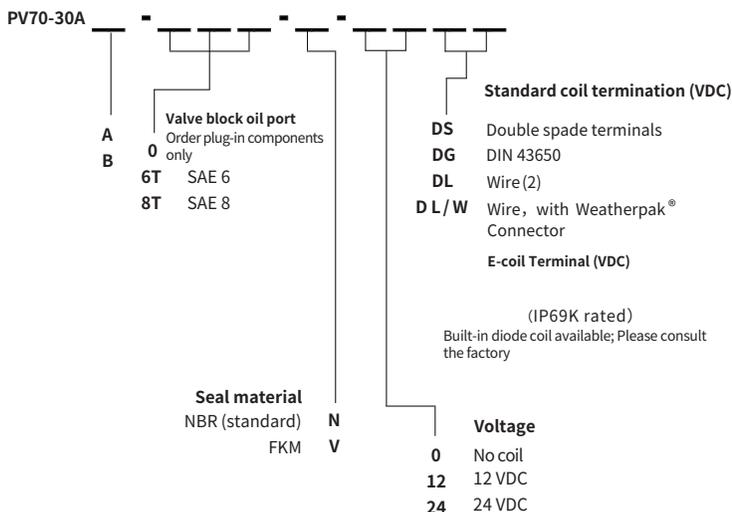
Working Principle

PV70-30 regulates flow to port ③ independent of system working pressure; output flow increases proportionally with solenoid current.

Note: if the priority port is blocked by an external valve while the valve is used for bypass control, bypass pressure drop will increase unless a small bleed is provided at the priority port.



Model Description



Materials

Cartridge:

Weight: 0.19 kg (0.42 lb); steel, working surfaces hardened; outer surface zinc-plated.

Standard valve block:

Weight: 0.36kg (0.80 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

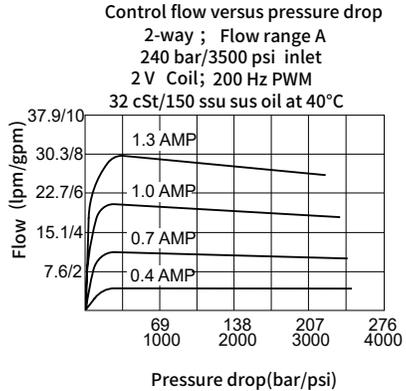
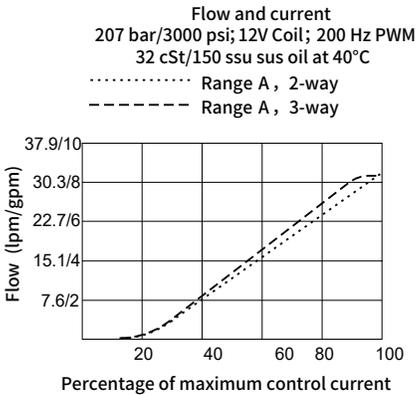
PV70 serie coil:

Weight: 0.32 kg (0.70 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

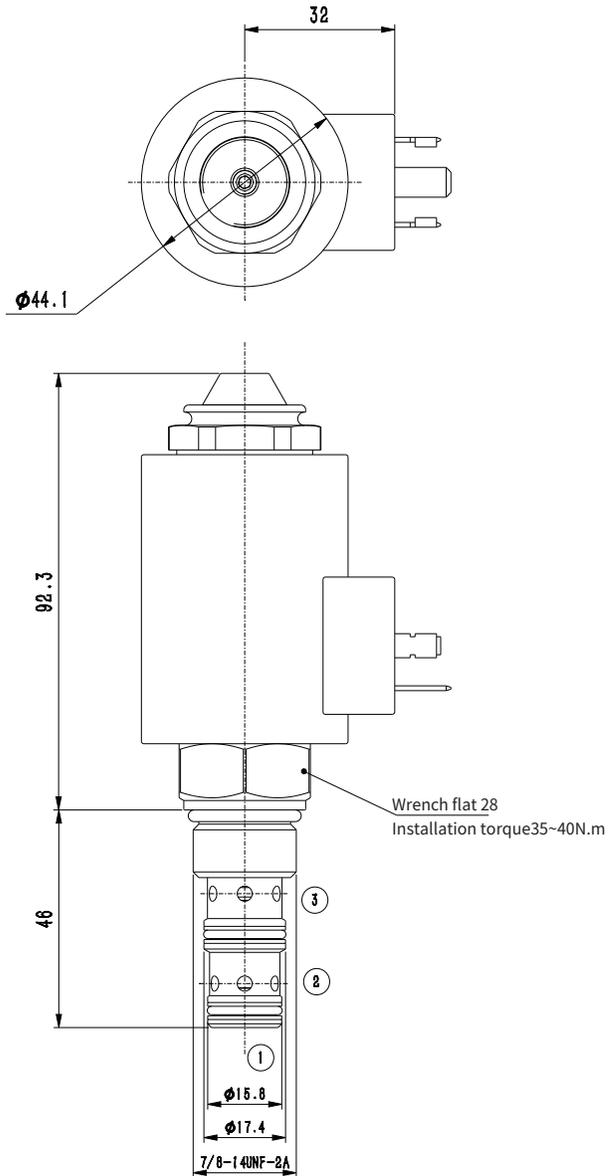
Technical Data

Rated Pressure	240bar(hydraulic port1)		
Rated regulated flow	30L/min (Port 2 normally open) ; 28L/min (Port 2 blocked)		
Internal leakage	When fully closed, the internal leakage is 197 mL/min at a 207 bar pressure drop		
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VDC (Full-wave rectification) duration 0.13A	
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectification) duration 0.7A	
Cavity detail	VC10-3 (See the technical reference materials for details)		
Working medium	Mineral oil or lubricating synthetic oil		
Viscosity range	7.4to420mm ² /s		
Temperature range	-40 to120°C(NBR sealing)		

Performance Curve (insert type only)



Outline Dimensions





SOLINER

3.5

XLRBAN-XWN

Reverse-proportional relief valve

Rated Pressure (bar) 350
 Max. Flow(L/min) 2 (see performance curve)

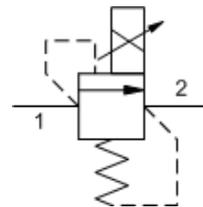
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

Contents

Description	02
Working principle	02
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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Solenoid-drive, electro-proportional relief, pilot-flow, hydraulic screw-in cartridge valve for stepless and accurate system-pressure control.

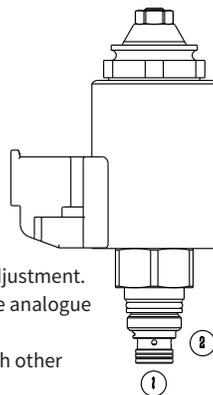
Working Principle

Energised: pilot-stage, direct-acting, electro-proportional, normally-closed pressure-regulating valve.

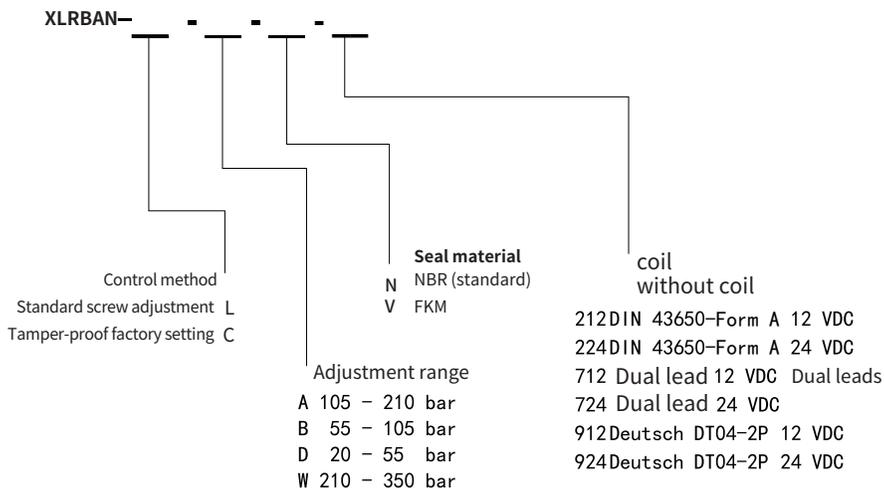
Within the selected pressure range, proportional control provides stepless adjustment.

When port 1 (inlet) pressure overcomes the solenoid force (determined by the analogue input signal), the poppet opens to allow flow from port 1 to port 2 (outlet).

This pilot relief valve uses T-8A cavity and is normally used in conjunction with other main-stage pressure-control cartridges.



Model Description



Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; D-sealing.

Standard valve block:

Weight: 0.16kg ; anodized high-strength aluminum alloy 6061-T6, rated to 350 bar ; ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with Deutsch connector.

Technical Data

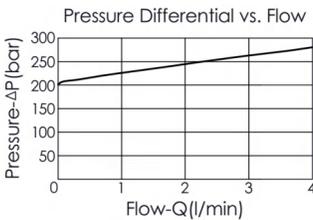
Rated Pressure	350bar(5000psi)
Maximum Flow	2L/min (0.54gpm)
Rated pressure	1L/min (0. 27gpm)
Installation torque	30-32 Nm
Overflow valve adjustment range	35-350bar
Maximum leakage at reseating	0. 025L/min
Minimum pull-in voltage	350bar: 85 % of nominal voltage
Cavity specification	T-8A (See the technical reference materials for details)
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4to420mm ² /s
Temperature range	-40to120°C (NBR sealing)

Proportional performance data

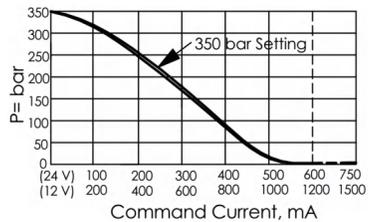
Hysteresis (with dither)	<4%
Hysteresis under DC drive	<8%
Linearity (with dither)	<2%
Repeatability (dither)	<2%
Recommended dither frequency	140Hz

Performance Curve (insert type only)

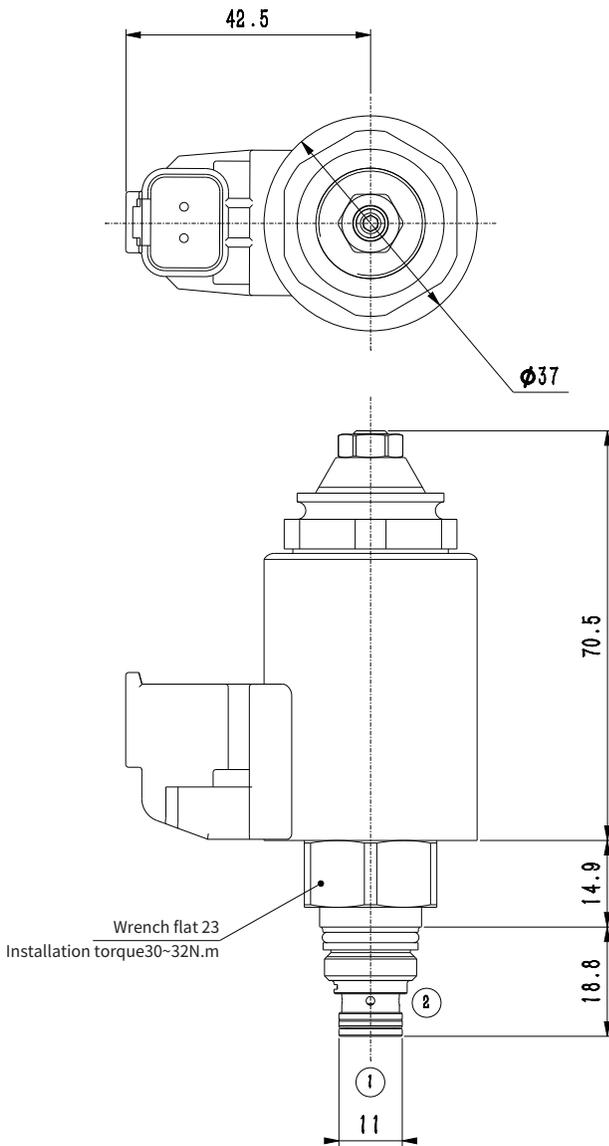
Flow-Pressure Drop Curve



Overflow Pressure Drop-Current characteristic



Outline Dimensions





SOLINER

3.6

XLRBAP-XWN

Direct-proportional relief valve

Rated Pressure (bar)	350
Max. Flow(L/min)	2 (see performance curve)

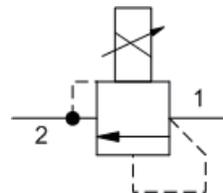
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Compact construction

Contents

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Working principle	02
Model Description	02
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Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Solenoid-drive, electro-proportional relief, pilot-flow, hydraulic screw-in cartridge valve for stepless and accurate system-pressure control.

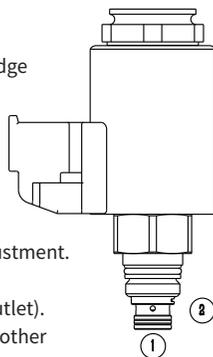
Working Principle

Energised: pilot-stage, direct-acting, electro-proportional, normally-closed pressure-regulating valve.

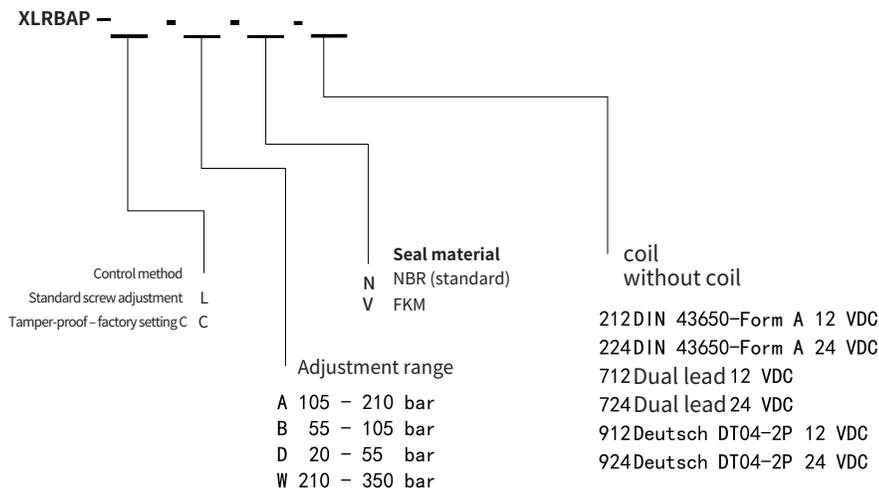
Within the selected pressure range, proportional control provides stepless adjustment.

When port 1 (inlet) pressure overcomes the solenoid force (determined by the analogue input signal), the poppet opens to allow flow from port 1 to port 2 (outlet).

This pilot relief valve uses T-8A cavity and is normally used in conjunction with other SUN main-stage pressure-control cartridges.



Model Description



Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; D-sealing.

Standard valve block:

Weight: 0.16kg ; anodized high-strength aluminum alloy 6061-T6, rated to 350 bar ; ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

E-type coil:

Weight: 0.14 kg (0.3 lb); rugged metal-shell fully encapsulated coil, IP69K rated, with Deutsch connector.

Technical Data

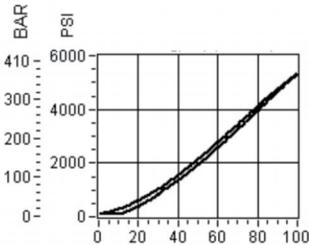
Rated Pressure	350bar(5000psi)
Maximum Flow	2L/min (0.54gpm)
Rated pressure	1L/min (0. 27gpm)
Installation torque	30-32 Nm
Overflow valve adjustment range	35-350bar
Maximum leakage at reseating	0. 025L/min
Minimum pull-in voltage	350bar: 85 % of nominal voltage
Cavity specification	T-8A (See the technical reference materials for details)
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4to420mm ² /s
Temperature range	-40to120°C (NBR sealing)

Proportional performance data

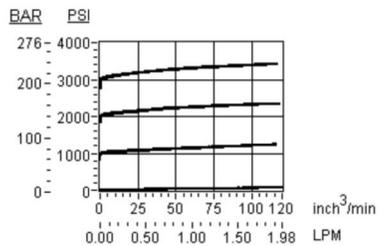
Hysteresis (with dither)	<4%
Hysteresis under DC drive	<8%
Linearity (with dither)	<2%
Repeatability (dither)	<2%
Recommended dither frequency	140Hz

Performance Curve (insert type only)

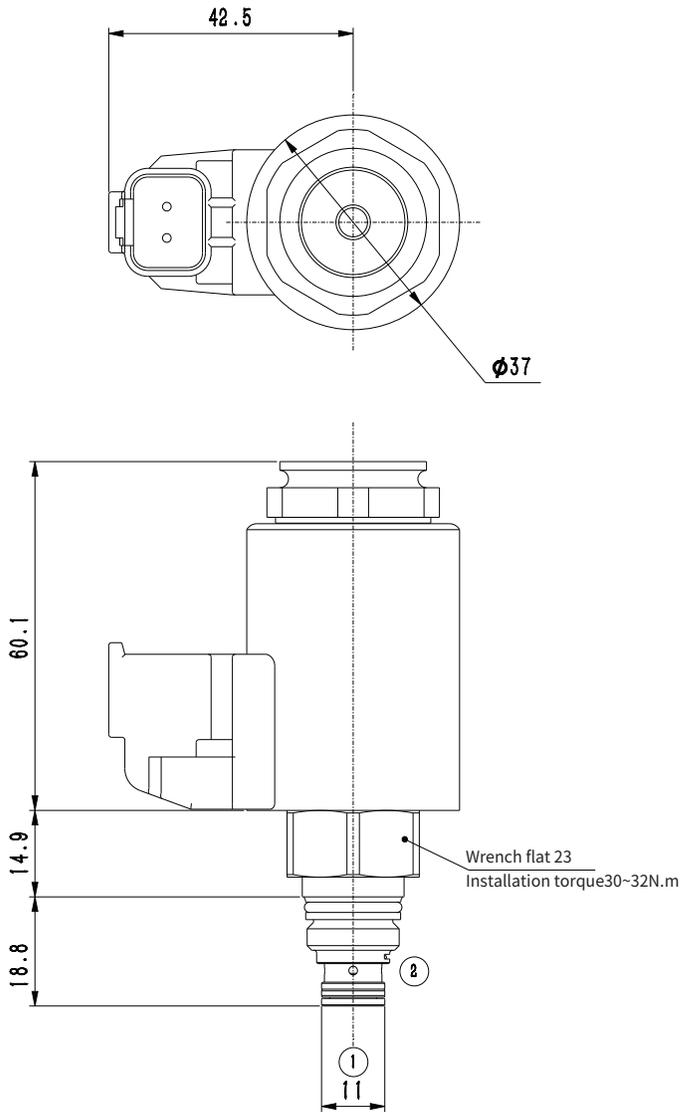
Overflow Pressure Drop-Current characteristic



Flow-Pressure Drop Curve



Outline Dimensions



4. Pressure control valve

4.1	SPR58-38-0 Pressure-reducing valve	313-316
4.2	SPR58-38-K Pressure-reducing valve	317-320
4.3	XLPD08-11A-30-D-L Pressure-reducing valve	321-324
4.4	XLCBBA-LHN Counterbalance valve	325-328
4.5	XLCBBG-LJN Counterbalance valve	329-332
4.6	XLVB0-SE-30.00A Counterbalance valve	333-336
4.7	XLRPEC-8WN Pressure-reducing valve	337-340
4.8	XLRV10-26-A-N-15 Pilot relief valve	341-344
4.9	XLRV10-26-A-N-30 Pilot relief valve	345-348
4.10	XLRVR08-M20.00 Relief valve	349-352
4.11	XLSC-11A Sequence valve	353-356
4.12	RVS08-20 Pilot-operated relief valve	357-360
4.13	RVS10-20 Pilot-operated relief valve	361-364



SOLINER

4.1

SPR58-38-0

Pressure-reducing valve

Rated Pressure (bar)	345
Max. Flow(L/min)	18.9 (see performance curve)

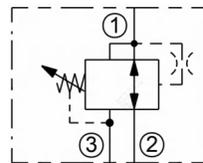
Features

- Adjuster cannot unscrew from body
- Body adjuster prevents springs cannot be bottomed
- Hardened valve spool and sleeve for long life
- Optional pressure ranges up to 227.5 bar (3300 psi)
- Industry-common cavity

Contents

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Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

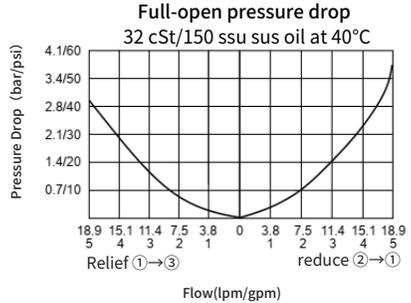
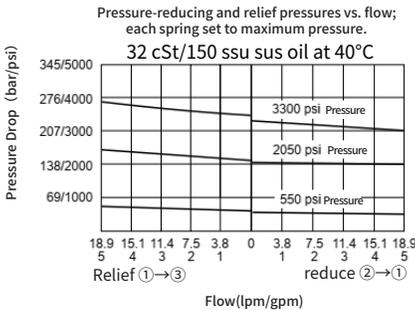
Function Symbol



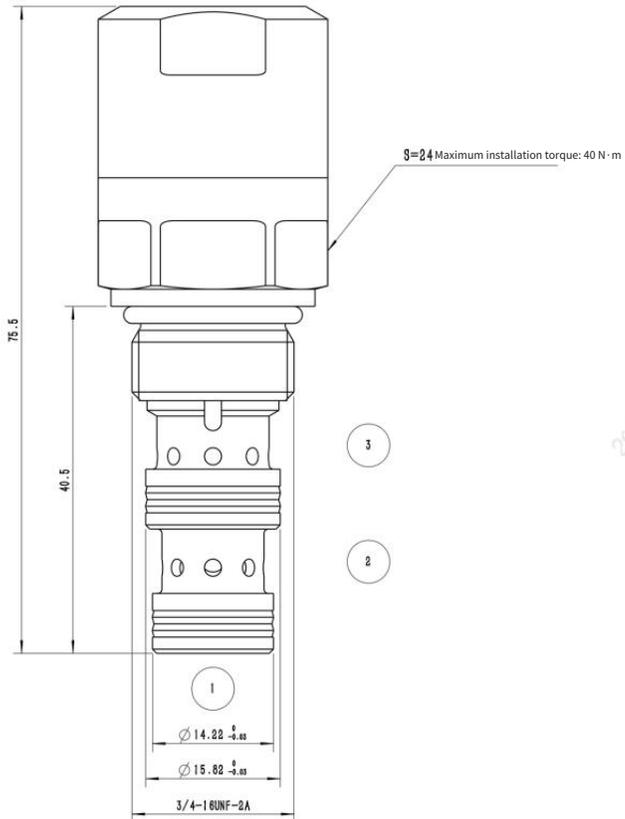
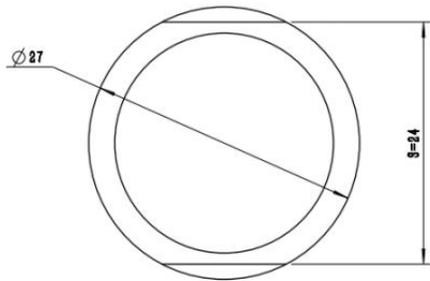
Technical Data

Rated pressure	345 bar (5000psi)
Maximum flow	18.9L/min (5gpm)
Working medium	Mineral oil or synthetic lubricating fluid with viscosity 7.4–420 cSt (50–2000 SSU)
Temperature range	-40 ~ 120 °C (NBR seal)
	-35~+204(FKM seal)
Tightening torque	60 +2 (44.25 +1.47)
Valve mounting specification	VC08-3 (See the technical reference materials for details)
Mounting	No limit

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.2

SPR58-38-K

Pressure-reducing valve

Rated Pressure (bar)	345
Max. Flow(L/min)	18.9 (see performance curve)

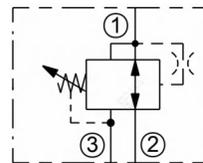
Features

- Adjuster cannot unscrew from body
- Body adjuster prevents springs cannot be bottomed
- Hardened valve spool and sleeve for long life
- Optional pressure ranges up to 227.5 bar (3300 psi)
- Industry-common cavity

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, direct-acting, spool-type pressure-reducing/relief valve with internal control and internally-vented spring chamber; designed for secondary-circuit pressure regulation. Internal damping makes it ideal for systems with unstable inlet flow but requiring very stable outlet pressure.

Working Principle

Under steady-state conditions the valve permits bidirectional flow between ports ② and ① while the spring chamber is vented through port ③. When pressure at port ① reaches the preset value the spool moves to throttle inlet port ②, thereby regulating pressure at port ①. If the reducing setting is exceeded, flow can also relieve from ① to ③. Tank pressure adds 1:1 to the pressure setting.



Model Description

SPR58-38-K		/	
Adjustment options		Setting(bar) [†]	
1/4" hex head	A	(blank)	Adjustable or specified pressure
1-1/2" dia. aluminum lever	B		E.g.
Option A, with cap nut	C	M25	25 bar
Factory non-adjustable	F	M100	100 bar
Factory concealed adjustment	H	(blank)	Setting(bar) [†]
Option C, with lock-wire hole	L		Adjustable or specified pressure
			E.g.
		10.0	1000 psi
		23.5	2350 psi
Valve block oil port			Pressure range
Order plug-in components only	0	05	10.3 to 37.9 bar
SAE 6	6T		(150 to 550 psi)
SAE 6	6TD	20	34.5 to 141.4 bar
SAE 6	6TS		(500 to 2050 psi)
1/4 inch BSP*	2B	32	55.2 to 220.6 bar
1/4 inch BSP*	2BD		(800 to 3200 psi)
1/4 inch BSP*	2BS		
3/8 inch BSP*	3B		
3/8 inch BSP*	3BD		
3/8 inch BSP*	3BS		
Seal material			
NBR (standard)	N		
FKM	V		
PU	P		

Note: Polyurethane seals must be used above 241

[†] Unless otherwise specified, adjustable valves are preset to 50 % of the spring's maximum pressure.

Materials

Cartridge:

Weight: 0.27 kg; steel, hardened working surfaces, zinc-plated exterior; seals: NBR O-rings and dumbbell-type seals (standard).

Standard Cavity Body:

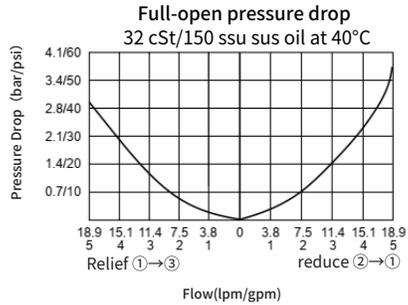
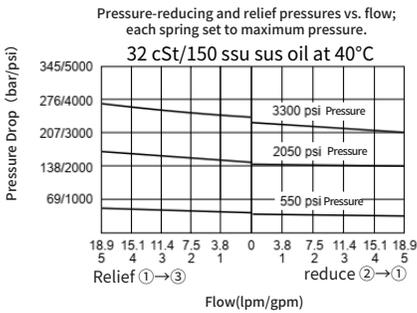
Weight: 0.27 kg; 6061-T6 aluminium, rated to 241 bar (3500 psi); Steel (suffix "S") and ductile-iron (suffix "C") bodies available for pressures above 240 bar (3500 psi); dimensions may vary—please consult the factory.

Note: orifice plates must not be used with this valve.

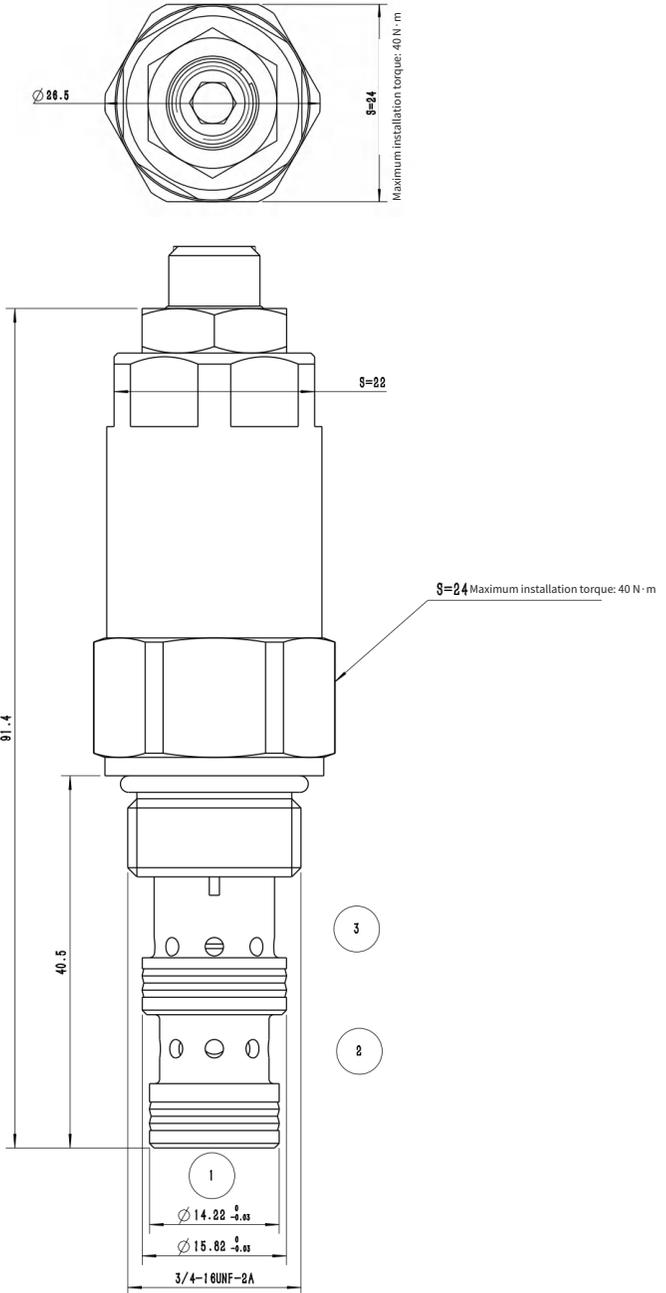
Technical Data

Rated pressure	345 bar (5000psi)
Maximum flow	18.9 L/min(5gpm)
Working medium	Mineral oil or synthetic lubricating fluid with viscosity 7.4–420 cSt (50–2000 SSU)
Temperature range	-40 ~ 120 °C (NBR seal)
	-35~+204(FKM seal)
Tightening torque	60 +2 (44.25 +1.47)
Valve mounting specification	VC08-3 (See the technical reference materials for details)
Mounting	No limit

Performance Curve (insert type only)



Outline Dimensions





4.3

XLPD08-11A-30-D-L

Pressure-reducing valve

Rated Pressure (bar)	350
Max. Flow(L/min)	40 (see performance curve)

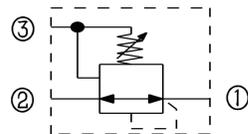
Features

- Hardened valve spool and sleeve for long life
- Adjuster cannot unscrew from body
- Body adjuster prevents springs cannot be bottomed
- Industry-common cavity
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, direct-acting, spool-type pressure-reducing/relief valve with internal control and spring-chamber vent; intended for secondary-circuit pressure regulation in stable-inlet-flow systems.

Working Principle

Under steady-state conditions bidirectional flow ②↔① is permitted while the spring chamber drains through port ③. When pressure at ① reaches the preset value the spool throttles inlet ② to regulate ①. If ① exceeds the reducing setting the valve opens the relief path ①→③, returning excess flow to tank for over-pressure protection.



Model Description

XLPD08-11A-30-D-L

<p>Design options</p> <p>30 Standard version</p>	<p>Standard version</p> <p>L Standard version</p> <p>LP Standard hex-head screw with external stainless-steel metal</p> <p>L Tamper-proof cap, stainless-steel material</p> <p>Control spring</p> <p>A 35-210bar(Standard-set pressure50bar)</p> <p>B 3.5-105bar(Standard-set pressure14bar)</p> <p>D 1.7-55bar(Standard-set pressure14bar)</p> <p>E 1.7-28bar(Standard-set pressure14bar)</p> <p>H 7-210bar(Standard-set pressure50bar)</p> <p>S 1.7-14bar(Standard-set pressure7bar)</p> <p>W 50-315bar(Standard-set pressure70bar)</p>
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Materials

Cartridge:

Weight: 0.16 kg (0.35 lb) ; steel, hardened working surfaces, zinc-plated exterior; seals: NBR O-rings and check ring (standard).

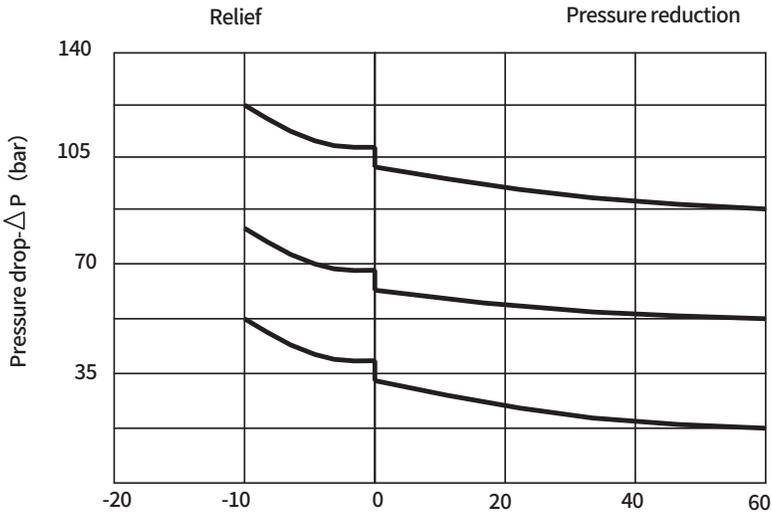
Standard Cavity Body:

Weight: 0.34 kg (0.75 lb) ; nodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.— please consult the factory.

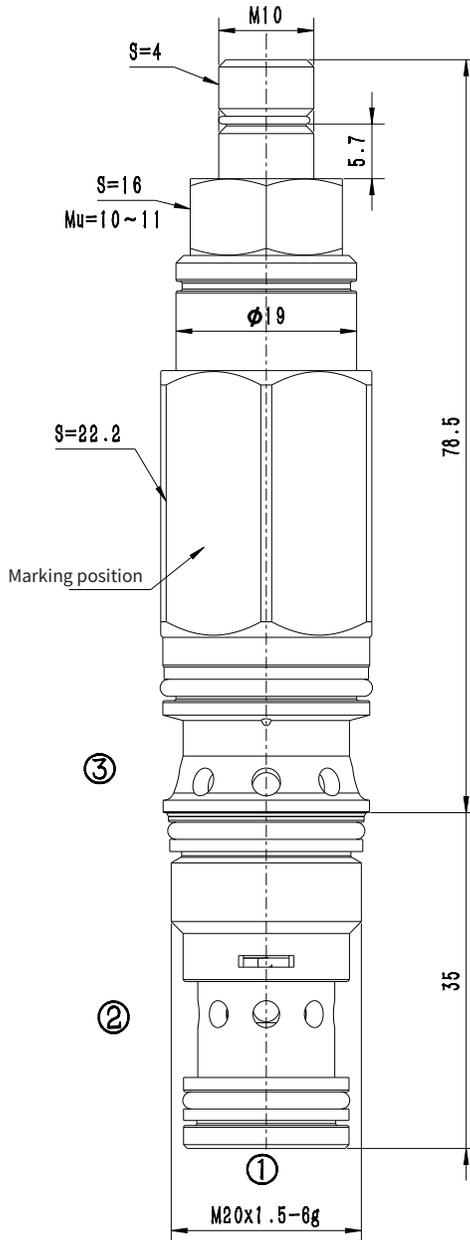
Technical Data

Rated pressure	350bar (5075psi)
Maximum flow	40L/min (g10.6pm)
Cracking pressure bar	3.5 (51) ~105bar (1523psi)
Working medium	Hydraulic fluid conforming to DIN 51524 power class (HL, HLP)
Temperature range	-30~120°C (FKM seal)
Valve tightening torque	30~35N·m
Cavity specification	T-11A
Oil contamination level	ISO 4406 class 21/18/15
Viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.4

XLCBBA-LHN

Counterbalance valve

Rated Pressure (bar)	280
Max. Flow(L/min)	15 (see performance curve)

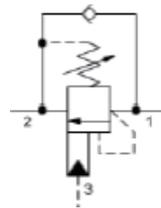
Features

- Continuous-duty rated coil
- Hardened seat for long life and low leakage
- Optional coil voltages and terminations
- Plug-in, voltage-interchangeable coils
- One-piece molded coil design
- Emergency manual override option
- IP69K waterproof “E” coil
- Industry-common cavity
- Emergency manual override option
- All hardened parts for extended durability

Contents

Description	02
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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

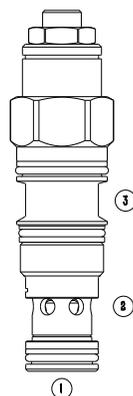
3-Way Poppet Valve, Spring-Biased Internal Drain, Screw-In Cartridge Type

Working Principle

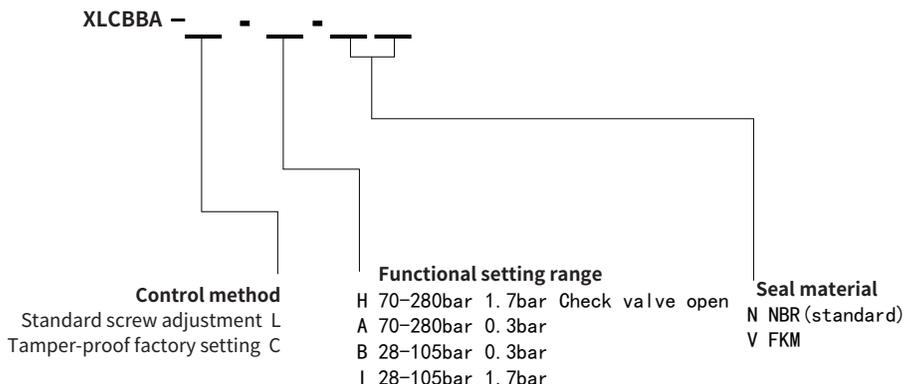
Check function: permits flow ② → ①; when pressure at ① is below the spring setting, blocks flow ① → ②.

Relief function: when pressure at ① exceeds the spring setting, provides relief flow ① → ②.

Hydraulic throttle function: control pressure at port ③ modulates the opening between ① and ②, giving variable orifice (throttling) action.



Model Description



Materials

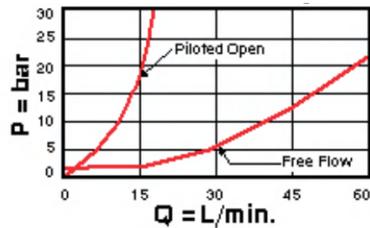
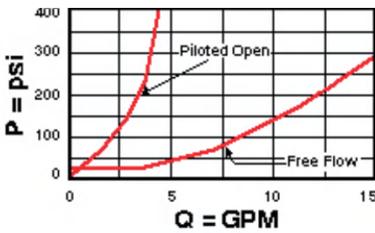
Cartridge:

Weight: 0.20 kg (0.441 lb); steel, working surfaces hardened; outer surface zinc-plated.
NBR O-rings and check ring (standard).

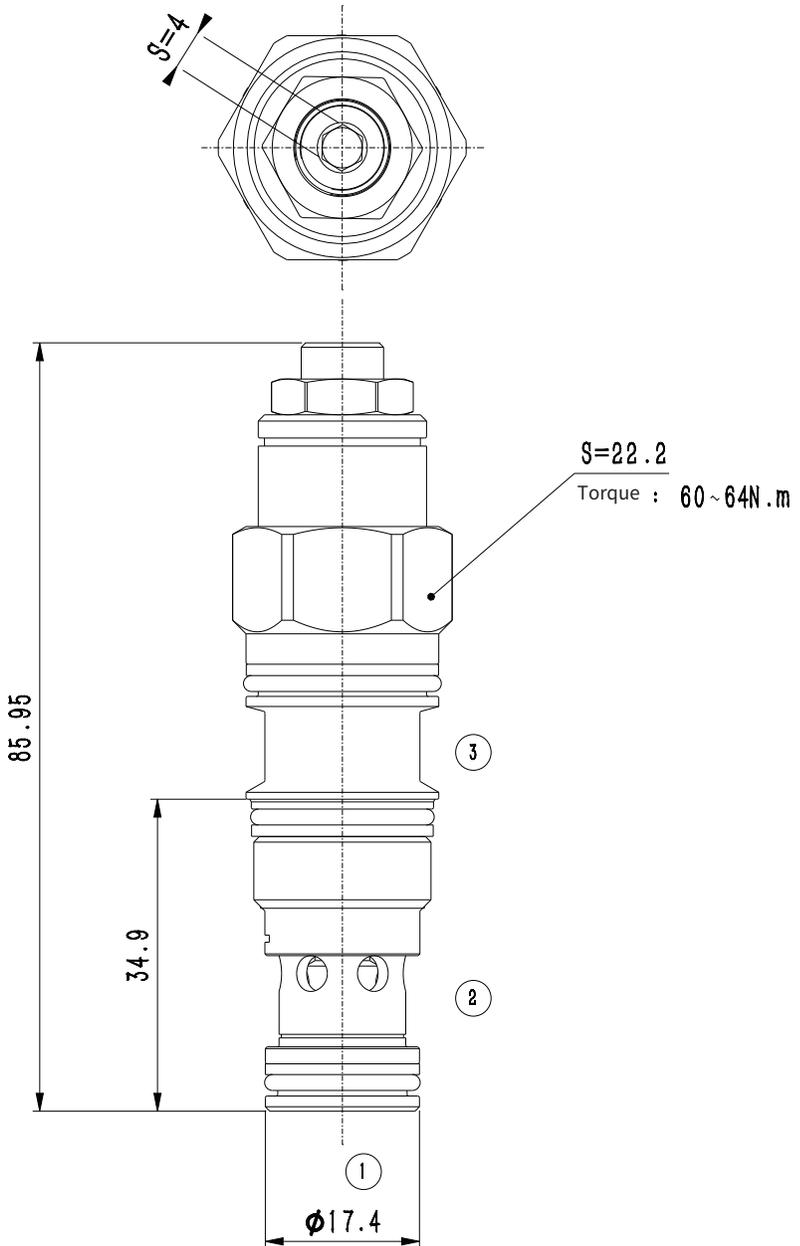
Technical Data

Rated pressure	280bar (4000psi)
Rated flow	15L/min (4gpm)
Pilot ratio	3:1 ,the maximum set pressure is 1.3 times the maximum load pressure
Mounting torque	60–64 N m
Pressure spring adjustment range	70–280 bar , adjustment lever counterclockwise rotations: 3.75 turns
Internal leakage	<0.4ml/min
Minimum pull-in voltage	350bar: 85 % of nominal voltage
Cavity specification	T–11A
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4 to 420 mm ² /s
Temperature range	-40 to 120°C (NBR sealing)

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.5

XLCBBG-LJN

Counterbalance valve

Rated Pressure (bar)	350
Max. Flow(L/min)	60 (see performance curve)

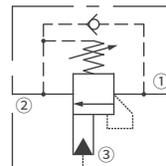
Features

- Maximum setting pressure = $1.3 \times$ load-generated pressure
- Back pressure at port ② must be \leq setting pressure
- Reseat pressure $\geq 85\%$ of setting pressure

Contents

Description	02
Working principle	02
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Function Symbol



Description

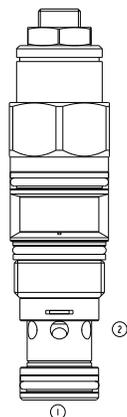
3-way, poppet-type, spring-biased, internal-drain, screw-in cartridge valve

Working Principle

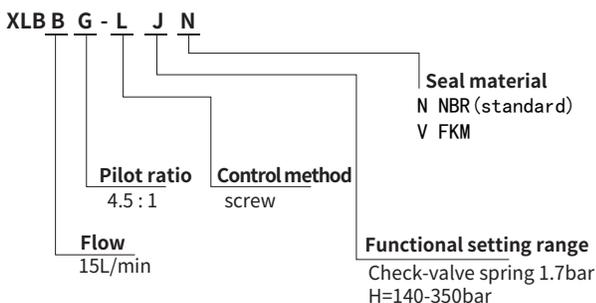
Check function: permits flow ② → ①; blocks ① → ② while pressure at ① is below spring setting;

Relief function: when pressure at ① exceeds spring setting, provides relief flow;

Hydraulic throttle function: control pressure at port ③ modulates opening between ① and ② for throttling action.



Model Description



Note: Factory-set pressure 210 bar
(customer-specified setting available).

Materials

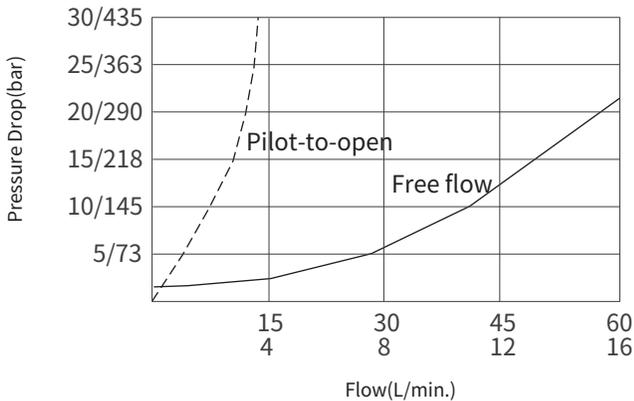
Cartridge:

Weight: 0.20 kg (0.441 lb); steel, working surfaces hardened; outer surface zinc-plated.
NBR O-rings and check ring (standard).

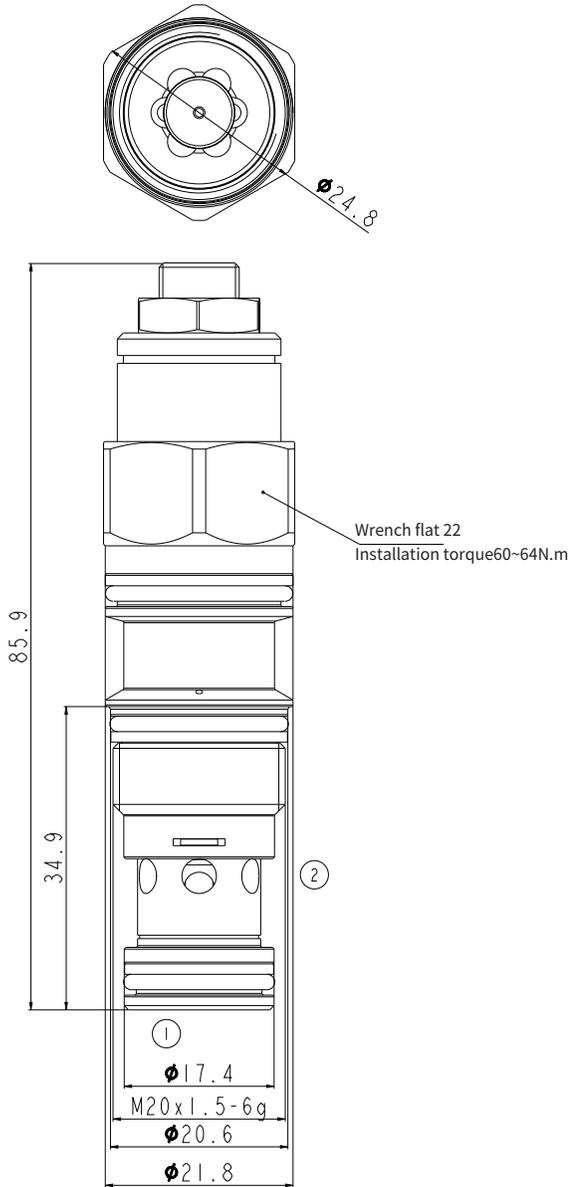
Technical Data

Rated pressure	350 bar
Maximum flow	60L/min (16gpm)
Internal leakage	Maximum reset leakage: 0.4 ml/min. Reset pressure must be higher than 85% of set pressure. Factory setting established at 32.8 ml/min flow rate.
Control ratio	4.5:1, the maximum set pressure is 1.3 times the maximum load pressure
Temperature range	-40°C to 120°C
Working medium	Mineral oil or lubricating synthetic oil with viscosity between 7.4–420 cSt (50–2000 SSU).
Cavity specification	IT-11A

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.6

XLVB0-SE-30.00-A

Counterbalance valve

Rated Pressure (bar)	350
Max. Flow(L/min)	40 (see performance curve)

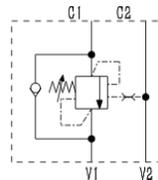
Features

- Maximum setting pressure = $1.3 \times$ load-generated pressure
- All hardened parts for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
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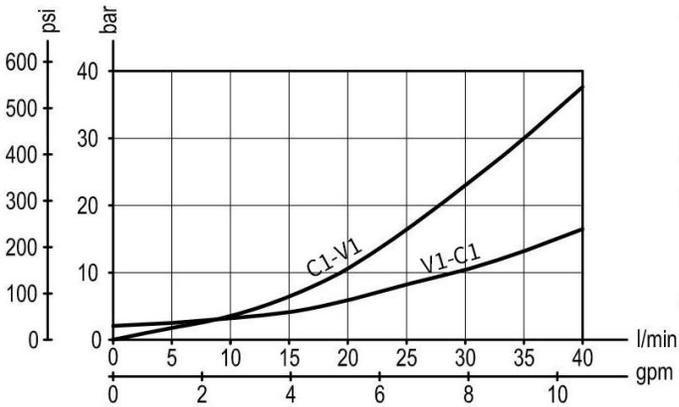
Function Symbol



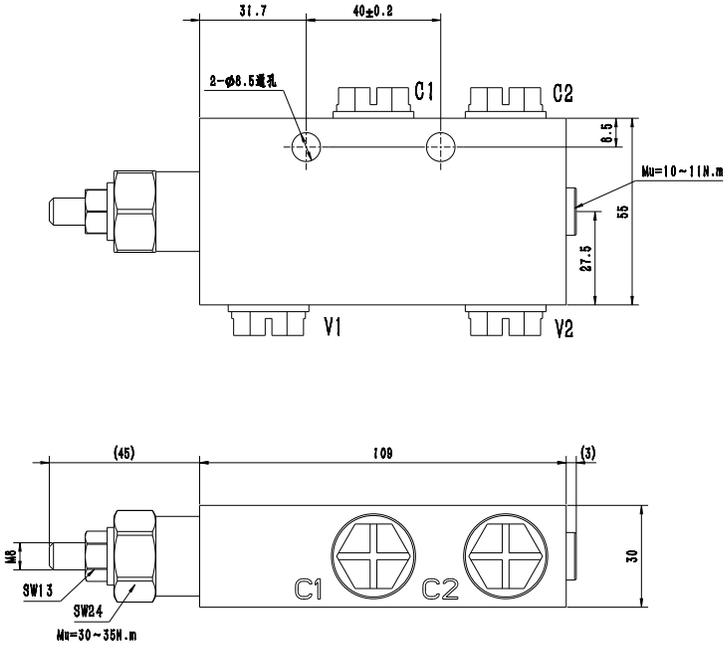
Technical Data

Rated pressure	350bar (5076psi)
Maximum flow	40 L/min (11gpm) 60 L/min (16gpm)
Remarks	Maximum load pressure at maximum set pressure: 246 bar (3568psi)
Working medium	Hydraulic oil conforming to DIN 51524 power grades (HL, HLP)
Temperature range	-30 ~+10°C (NBR sealing)
Internal leakage	5 drops/min (at nominal pressure)
Port size	M18x1.5(C1、 C2、 V1、 V2)
Oil contamination level	ISO 4406 cleanliness level 21/18/15
Viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.7

XLRPEC-8WN

Main-stage Relief Valve

Rated Pressure (bar)	350
Max. Flow(L/min)	160 (see performance curve)

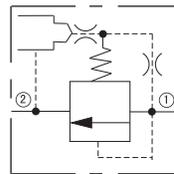
Features

- Fast, smooth response to pressure changes
- Hardened valve spool and sleeve for long life
- Compact size
- Industry-common cavity

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
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Function Symbol

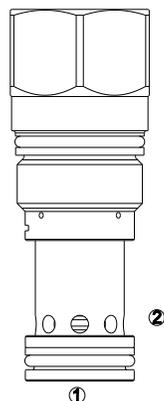


Description

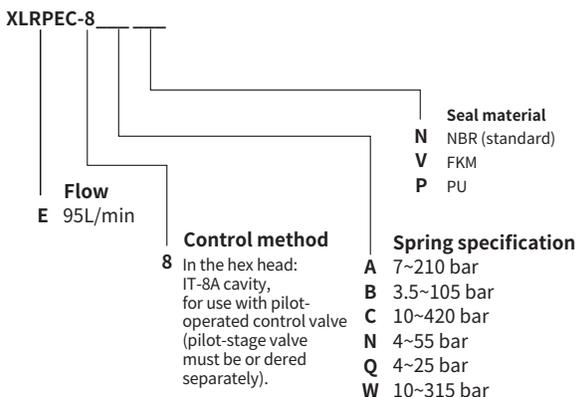
Normally-closed regulating element with integrated pilot control cavity; balanced spool design. Pilot cavity accepts any T-8A pressure-control cartridge.

Working Principle

When inlet ① pressure reaches the pilot valve setting, the valve opens to tank ② and throttles to regulate pressure. The pilot setting determines the pressure drop between port 1 and port 2.



Model Description



Materials

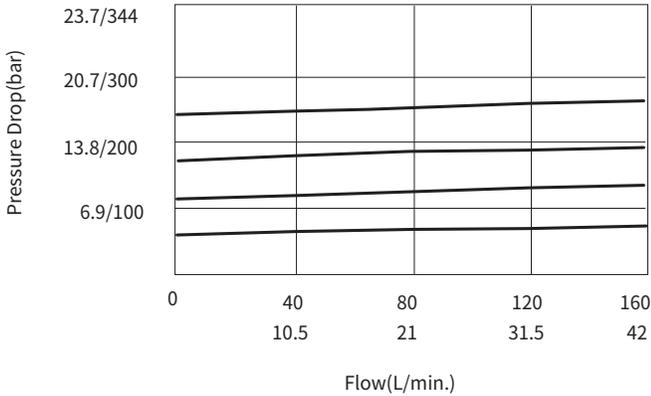
Cartridge:

Weight: 0.25 kg (0.55 lb); steel, working surfaces hardened; outer surface zinc-plated. NBR O-rings and PU-check ring (standard).

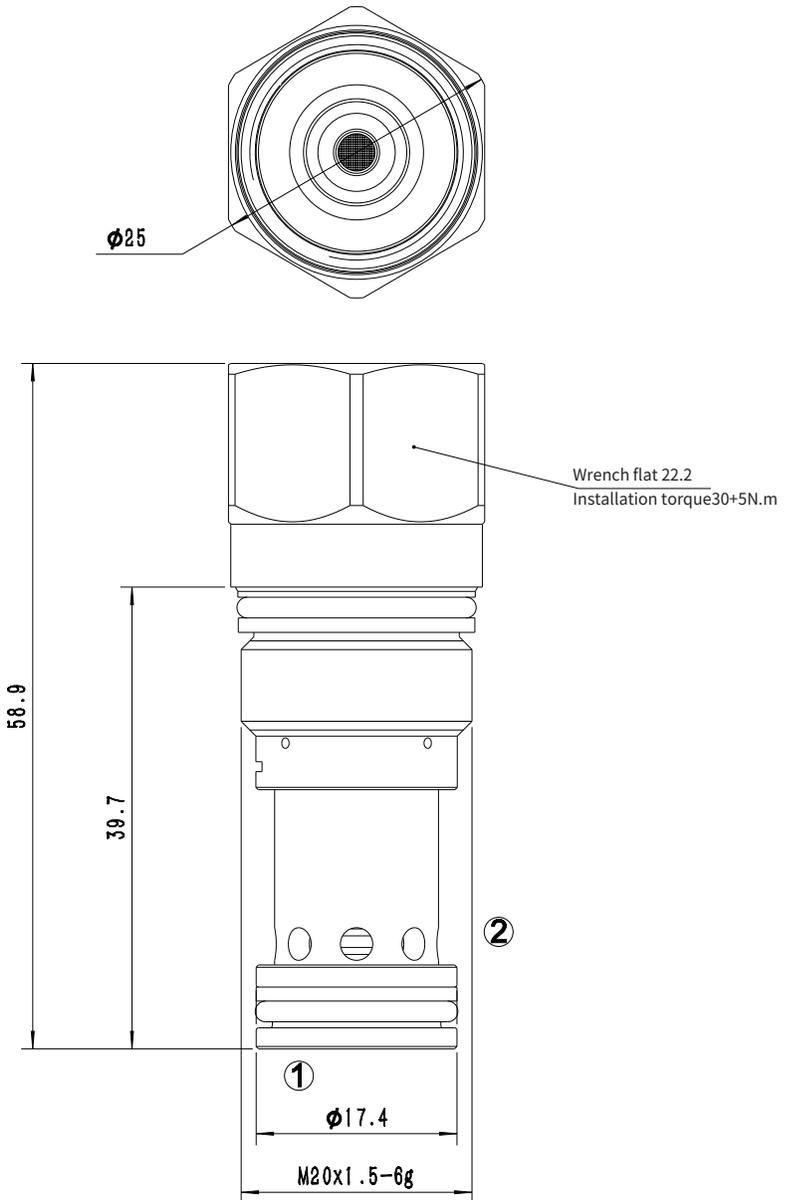
Technical Data

Rated pressure	350bar (5100 psi)
Maximum flow	160 L/min (42gpm)
Internal leakage	Maximum internal leakage: 50 ml/min at 70 bar
Response time	20ms
Mounting	No limit
Cavity specification	IT-10A
Pilot-stage cavity	IT-8A
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4~420 cSt(50-2000ssu)
Temperature range	-40 to 120°C

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.8

XLRV10-26-A-N-15

Pilot relief valve

Rated Pressure (bar)	350
Max. Flow(L/min)	110 (see performance curve)

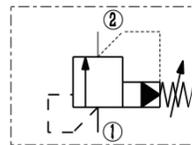
Features

- Adjuster cannot unscrew from body
- Body adjuster prevents springs cannot be bottomed
- Hardened valve spool and sleeve for long life
- Pressure range to 350 bar(5100 psi)
- Fast, smooth response to pressure changes
- Industry-common cavity

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol

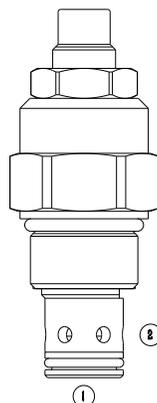


Description

Screw-in cartridge, two-stage pilot-operated, spool-type relief valve for pressure-limiting circuits requiring fast response and low hysteresis.

Working Principle

In the normal position flow ①→② is blocked; when pressure at ① reaches the pilot setting the pilot opens and moves the main poppet (second stage), allowing flow ①→②. The valve rapidly reacts to load changes in the hydraulic circuit. Note: RV10-26 must not be used as a cross-line relief valve.



Model Description

XLRV10-26-A-N-15

Adjustment options	
1/4" internal hex head	A
1-1/2" dia. aluminum knob	B
Option A, with cap nut	C
Factory preset, non-adjustable	F
Factory preset, concealed adjustment	H
Option C, with lockwire hole	L

Seal material	
Pressure at P only:	15 7 to 105 bar
N NBR (standard)	30 100 to 350 bar
V FKM	

Pressure range	
15	7 to 105 bar
30	100 to 350 bar

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.16kg ; anodized high-strength aluminum alloy 6061-T6, rated to 350bar; ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

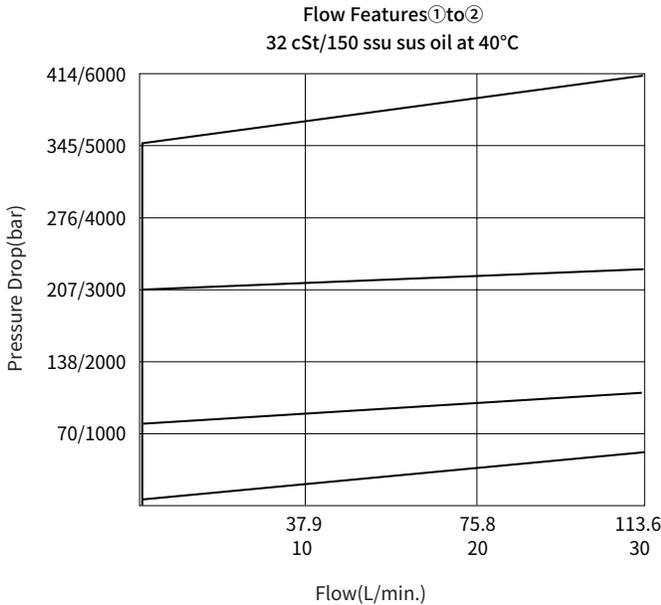
E-type coil:

Weight: 0.14 kg (0.3lb); rugged metal-shell fully encapsulated coil, IP69K rated, with Deutsch connector.

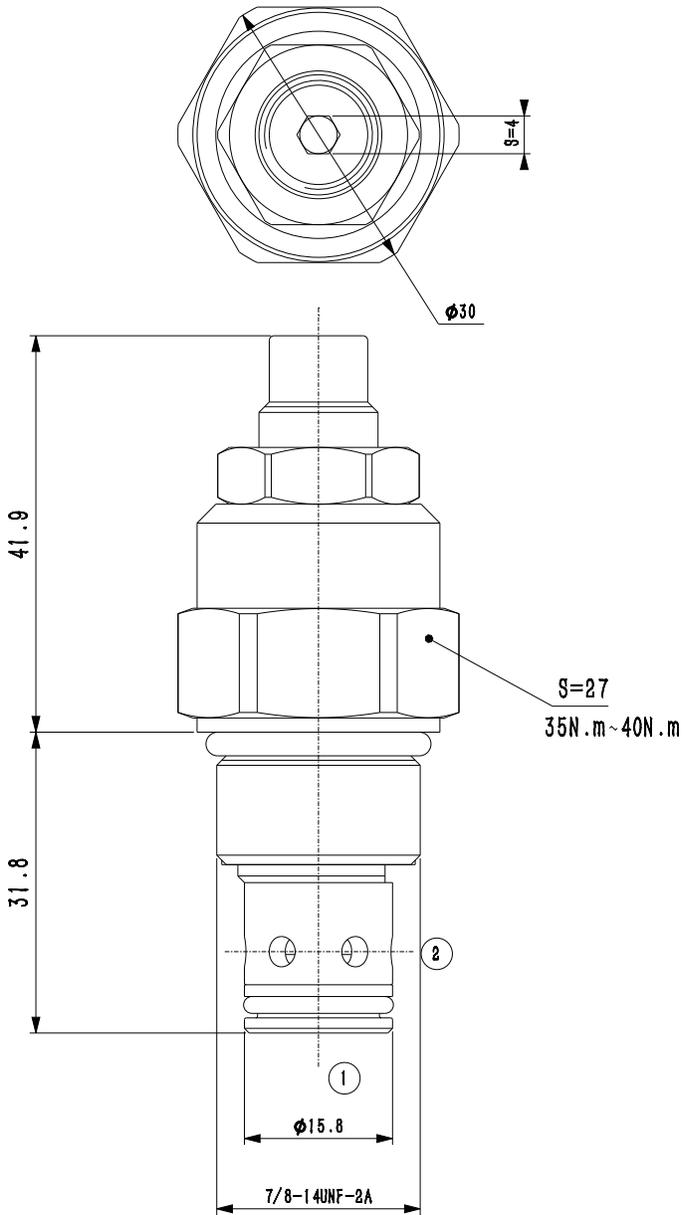
Technical Data

Rated pressure	350bar (5000psi)	
Maximum flow	110L/min (29gpm)	
Internal leakage	Maximum internal leakage 115 mL/min at 85 % cracking pressure	
Cracking pressure definition	At flow up to 7.6 L/min	
20°C Initial current of the timing coil	Standard coil	12VDC duration 1.2A; 115VAC (Full-wave rectification) duration 0.13A
	D-type coil	12VDC duration 1.4A; 115VDC (Full-wave rectification) duration 0.7A
Spring pressure adjustment range	7bar-105bar	
Cavity specification	VC10-2 (See the technical reference materials for details)	
Working medium	Per ISO 4406: cleanliness class 21/18/15	
Viscosity range	7.4 ~ 420 mm ² /s	
Temperature range	-40 to 120 °C (NBR sealing)	

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.9

XLRV10-26-A-N-30

Pilot relief valve

Rated Pressure (bar)	350
Max. Flow(L/min)	110 (see performance curve)

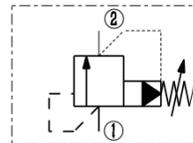
Features

- Adjuster cannot unscrew from body
- Body adjuster prevents springs cannot be bottomed
- Hardened valve spool and sleeve for long life
- Pressure ranges up to 350 bar (5000 psi)
- Fast, smooth response to pressure changes
- Industry-common cavity

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



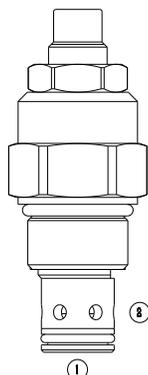
Description

Screw-in cartridge, two-stage pilot-operated, spool-type relief valve for pressure-limiting circuits requiring fast response and low hysteresis.

Working Principle

In the normal position flow from ① to ② is blocked; only when pressure at ① is sufficient to open the pilot stage does the pilot actuate and shift the main poppet (second stage), allowing oil to flow from ① to ②. The valve responds rapidly to load changes in the hydraulic circuit.

Note: RV10-26 must not be used as a cross-line relief valve.



Model Description

XLRV10-26-A-N-30

Adjustment options	
1/4" internal hex head	A
1-1/2" dia. aluminum knob	B
Option A, with cap nut	C
Factory preset, non-adjustable	F
Factory preset, concealed adjustment	H
Option C, with lockwire hole	L

Seal material	
Pressure at P only:	
N NBR (standard)	
V FKM	

Pressure range	
15	7 to 105 bar
30	100 to 350 bar

Materials

Cartridge:

Weight: 0.09 kg (0.20 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Standard valve block:

Weight: 0.16kg; anodized high-strength aluminum alloy 6061-T6, rated to 350bar; ductile-iron and steel manifolds available; dimensions may vary.

Standard coil:

Weight: 0.11 kg (0.25 lb) ; Integrated thermoplastic encapsulation; H-level high-temperature magnet wire.

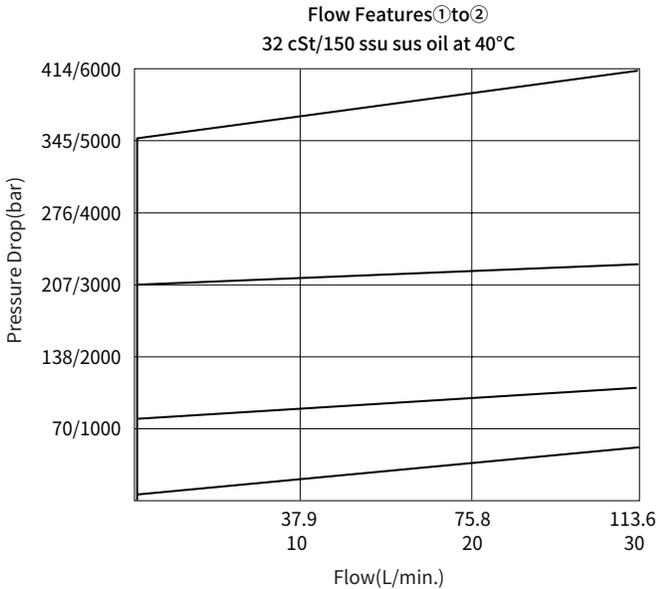
E-type coil:

Weight: 0.14 kg (0.31lb); rugged metal-shell fully encapsulated coil, IP69K rated, with Deutsch connector.

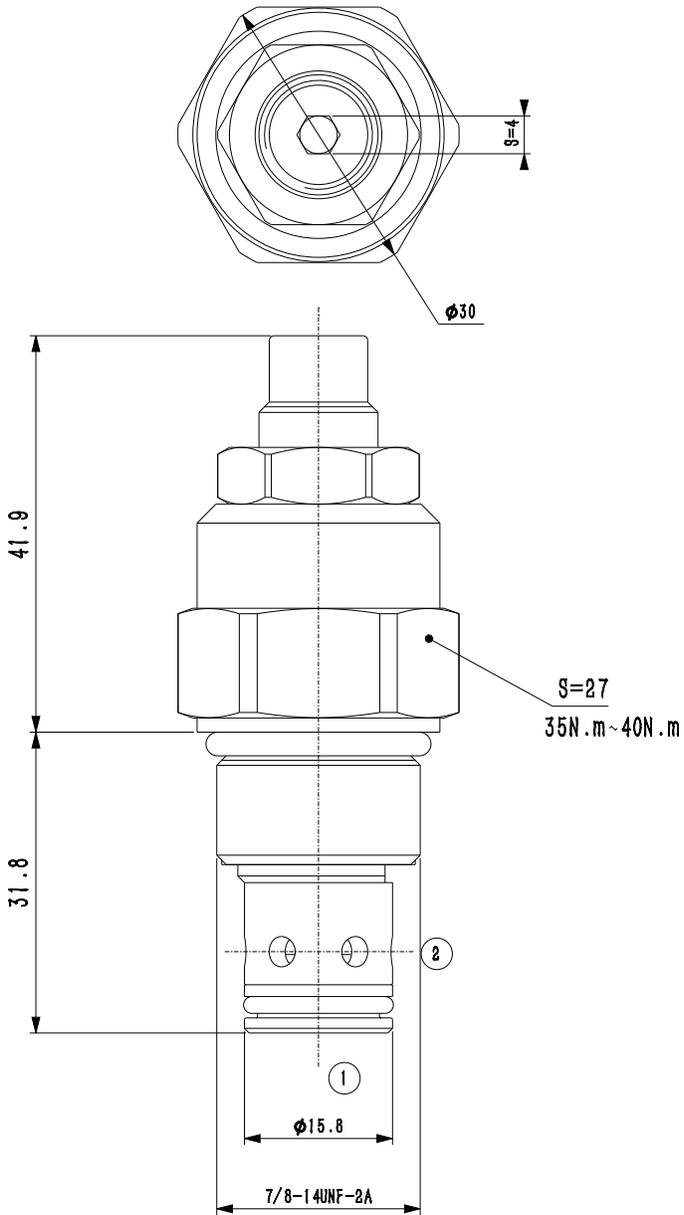
Technical Data

Rated pressure	350bar (5000psi)
Maximum flow	110L/min (29gpm)
Internal leakage	Maximum internal leakage 115 mL/min at 85 % cracking pressure
Cracking pressure definition	At flow up to 7.6 L/min
Reseating pressure	90 % of cracking pressure
Spring pressure adjustment range	80bar-350bar
Cavity specification	VC10-2 (See the technical reference materials for details)
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4 ~ 420 mm ² /s
Temperature range	-40 to 120 °C (NBR sealing)

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.10

XLRVR08-M20.00

Relief valve

Rated Pressure (bar)	250
Max. Flow(L/min)	20 (see performance curve)

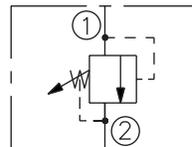
Features

- Excellent stability across the full flow range
- Low hysteresis and accurate pressure control
- All external surfaces zinc-plated for corrosion protection
- Optional pressure ranges:
50 bar (725 psi) ~ 280 bar (7061 psi)

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
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Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

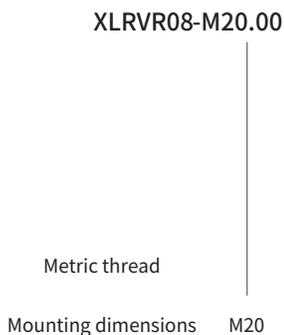
Screw-in cartridge, direct-acting, poppet-type relief valve for low-flow circuits requiring minimal internal leakage.

Working Principle

Screw-in cartridge, direct-acting, poppet-type relief valve for low-flow circuits requiring minimal internal leakage.



Model Description



Materials

Cartridge:

Weight: 0.23 kg (0.50 lb) ; steel, hardened working surfaces, zinc-plated exterior; seals: NBR O-rings and check ring (standard).

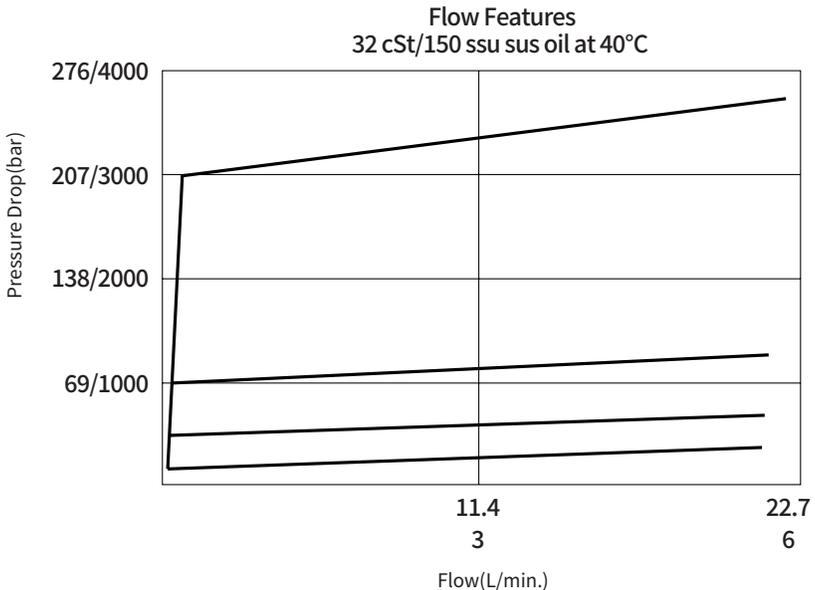
Standard Cavity Body:

Weight: 0.16 kg (0.35 lb) ; nodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.— please consult the factory.

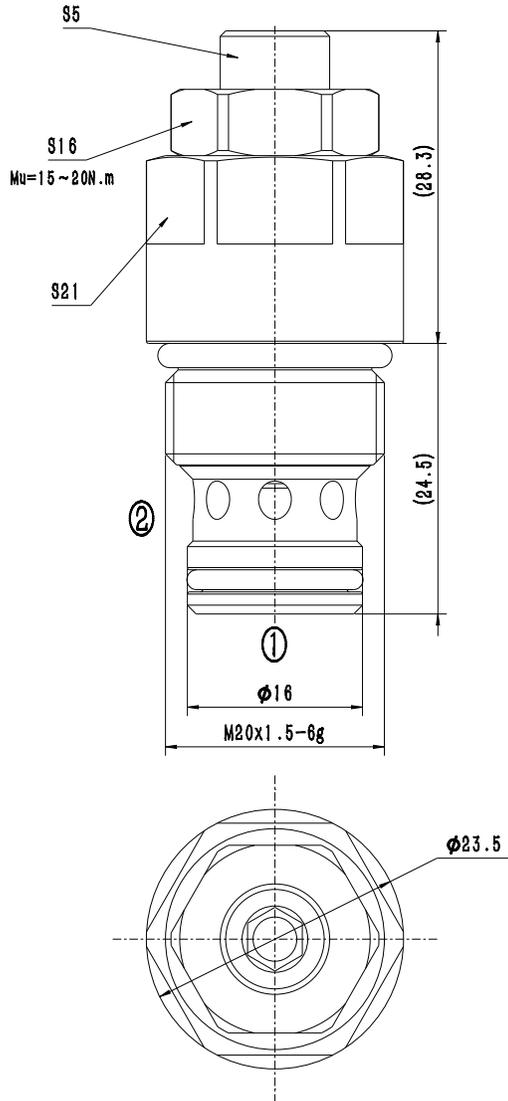
Technical Data

Rated pressure	250bar (3625psi)
Maximum flow	25L/min (6.6gpm)
Cracking pressure bar	50(725)~280bar(4061psi)
Working medium	Hydraulic oil to DIN 51524 power classes (HL, HLP)
Temperature range	-30 ~+120 °C (NBR sealing)
Tightening torque	50~60 N·m
Valve mounting specification	VH063
Oil contamination level	Per ISO 4406: cleanliness class 21/18/15
viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.11

XLSC-11A

Sequence valve

Rated Pressure (bar)	350
Max. Flow(L/min)	60 (see performance curve)

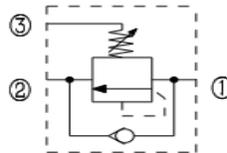
Features

- Screw-in cartridge
- Hardened valve spool and sleeve for long life
- Low leakage
- Compact construction

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, direct-acting, ball-poppet-type sequence valve with internally vented spring chamber.

Working Principle

Port ① is inlet, port ② is sequence port; when ① pressure exceeds the setting, flow is allowed ①→②.

②→① functions as a check valve; when ② pressure exceeds the check setting, reverse flow is permitted.

Normally no flow exits port ③, yet it must be piped to tank; any back-pressure at ③ adds 1:1 to the setting.



Model Description

XLSC-11A- X - Y - Z

Structural design

Standard 30

Control method

- L Standard internal hex screw
- LP Standard internal hex screw (external metal parts stainless)
- C Stainless steel tamper-proof cap
- CB Plastic anti-tamper cap
- K Knob with setting dial

Adjustment options

35-210bar	(Standard-set pressure70bar)	A
20-105bar	(Standard-set pressure70bar)	B
140-420bar	(Standard-set pressure140bar)	C
14-55bar	(Standard-set pressure28bar)	D
7-28bar	(Standard-set pressure14bar)	E
55-315bar	(Standard-set pressure70bar)	W

Materials

Cartridge:

Weight: 0.196 kg (0.43 lb) ; steel, hardened working surfaces, zinc-plated exterior; seals: NBR O-rings and check ring (standard).

Standard Cavity Body:

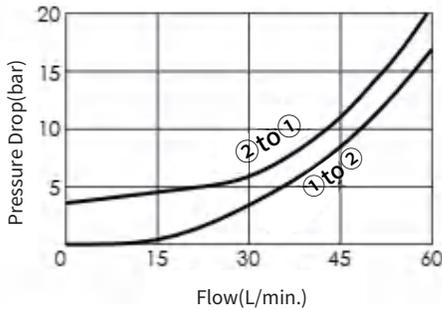
Weight: 0.26 kg; nodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.— please consult the factory.

Technical Data

Rated pressure	350 bar (5076 psi)
Maximum flow	60 L/min (15.85 gpm)
Internal leakage	≤0.7 mL/min (14 drops/min)
Check-valve cracking pressure	2.8 bar (40.6 psi)
Mounting torque	40-50N.m
Cavity specification	T-11A(See the technical reference materials for details)
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4to420 mm/s
Temperature range	-40to120°C(NBR sealing)

Performance Curve (insert type only)

Free flow: port ② to ①
 Pressure drop with sequence port fully open: port ① to ②





SOLINER

4.12

RVS08-20

Pilot-operated relief valve

Rated Pressure (bar)	350
Max. Flow(L/min)	30 (see performance curve)

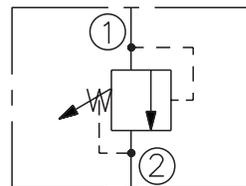
Features

- Adjuster cannot unscrew from body
- Ensures springs cannot be bottomed
- Pressure range to 350 bar(5100 psi)
- Fast, smooth response to pressure changes
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
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Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, direct-acting, poppet-type relief valve for low-flow circuits requiring minimal internal leakage.

Working Principle

When pressure at port ① reaches the setting, the valve opens to port ② to limit further pressure rise.



Model Description

RV08 - 20 - 0 -		-	-	-	-	-
Seal material						Setting (bar)[†]
NBR (standard)	N					(blank) Adjustable or specified pressure, e.g.:
FKM	V					M25 25 bar
						M100 100 bar
						Setting (bar)[†]
						(blank) Adjustable or specified pressure, e.g.:
						9.0 900 psi
						23.5 2350 psi
						Adjustment options
					8	15-60 bar(217-870 psi)
					19	25-135 bar(362-1958 psi)
					31	50-220 bar(725-3190 psi)
					50	120-350 bar(1740-5100 psi)

Materials

Cartridge:

Weight: 0.15kg (0.33 lb) ; steel, hardened working surfaces, zinc-plated exterior; seals: D-ring (standard).Anodized aluminum alloy handle and nut cover.

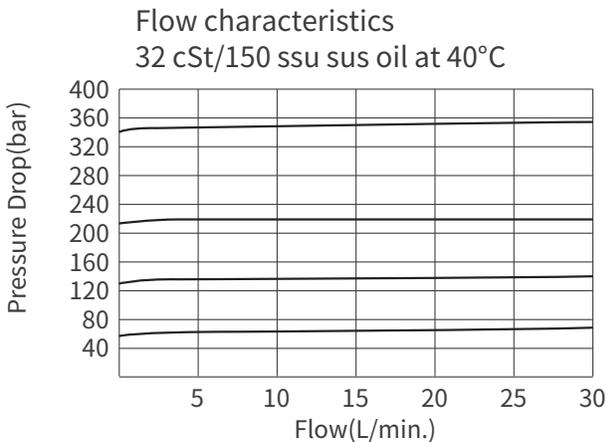
Standard Cavity Body:

Weight: 0.16 kg (0.35 lb) ; nodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.— please consult the factory.

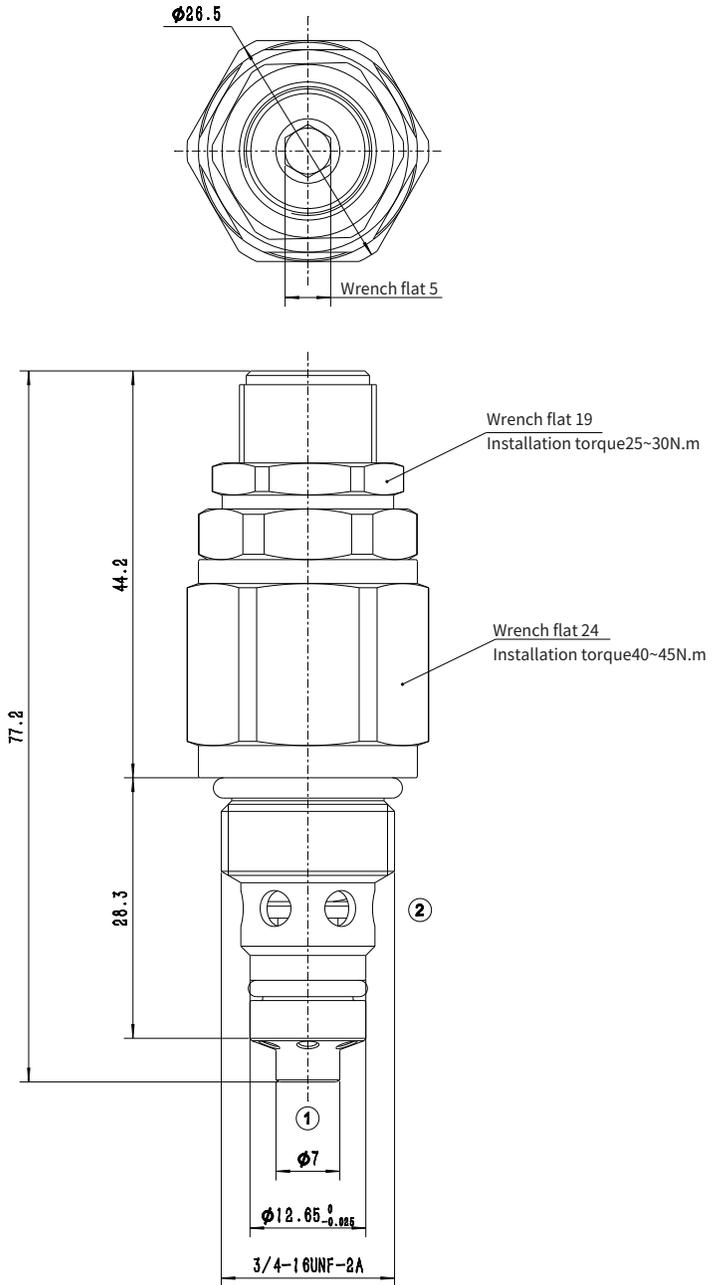
Technical Data

Rated pressure	350 bar (5 100 psi)
Maximum flow	30 L/min (8.0 gpm)
Internal leakage	At 80 % cracking pressure, max. internal leakage 0.25 mL/min (5 drops/min)
Cracking pressure definition	Pressure at port ① measured bar (psi) at 16.4 mL/min (1 in ³ /min) flow
Reseating pressure	80 % of cracking pressure
Temperature range	-40 °C to 100 °C
Cavity specification	VC08-2 (see technical data sheet)
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4 – 420 mm ² /s
Temperature range	-54 °C to 107 °C (polyurethane seals)
	-40 °C to 100 °C (NBR seals)
	-26 °C to 204 °C (FKM seals)
Oil contamination level	Minimum cleanliness ISO 4406 18/16/13; 15/13/11 recommended for extended life

Performance Curve (insert type only)



Outline Dimensions





SOLINER

4.13

RVS10-20

Pilot-operated relief valve

Rated Pressure (bar)	350
Max. Flow(L/min)	50 (see performance curve)

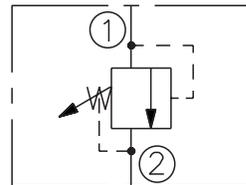
Features

- Adjuster cannot unscrew from body
- Ensures springs cannot be bottomed
- Pressure range to 350 bar(5100 psi)
- Fast, smooth response to pressure changes
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, direct-acting, poppet-type relief valve for low-flow circuits requiring minimal internal leakage.

Working Principle

When pressure at port ① reaches the setting, the valve opens.



Model Description

RV10- 20 - 0 -			
Seal material			Setting (bar)[†]
NBR (standard) N			(blank) Adjustable or specified pressure, e.g.:
FKM V			M25 25 bar
			M100 100 bar
			Setting (bar)[†]
			(blank) Adjustable or specified pressure, e.g.:
			9.0 900 psi
			23.5 2350 psi
		Adjustment options	
		8 15-60 bar(217-870 psi)	
		19 25-135 bar(362-1958 psi)	
		31 50-220 bar(725-3190 psi)	
		50 120-350 bar(1740-5100 psi)	

Materials

Cartridge:

Weight: 0.17kg (0.371 lb) ; steel, hardened working surfaces, zinc-plated exterior; seals: D-ring (standard).Anodized aluminum alloy handle and nut cover.

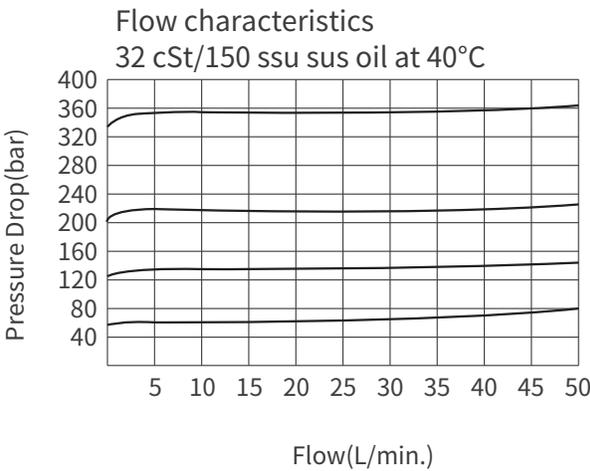
Standard Cavity Body:

Weight: 0.16 kg (0.35 lb) ; nodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.— please consult the factory.

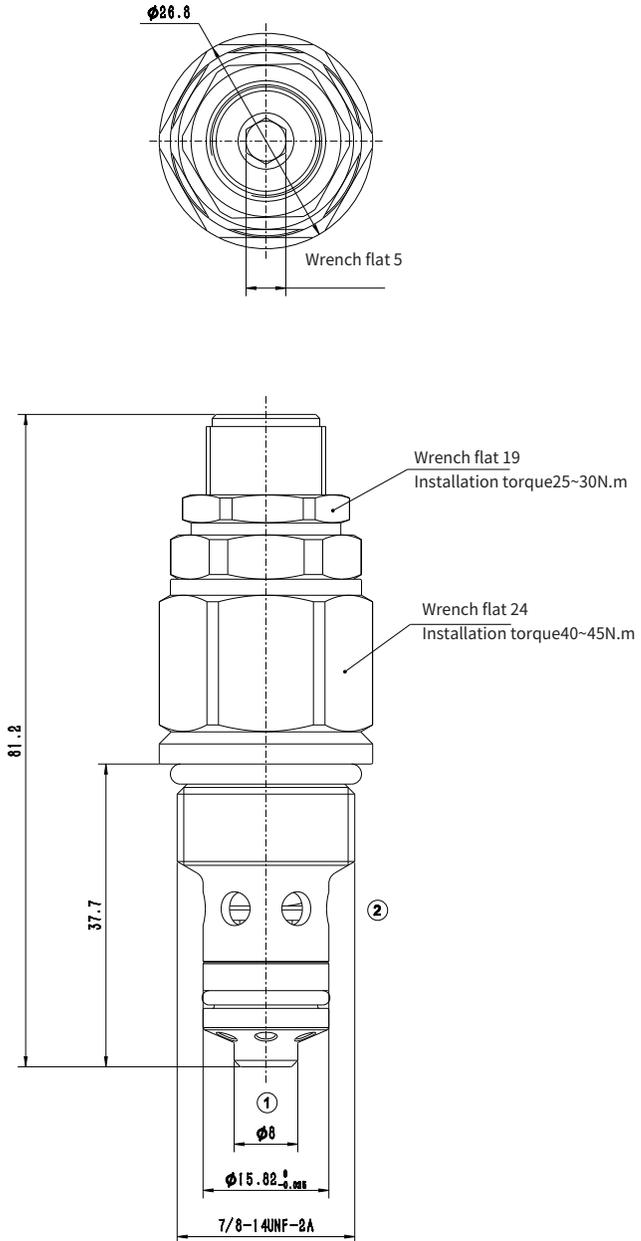
Technical Data

Rated pressure	350 bar (5 100 psi)
Maximum flow	30 L/min (8.0 gpm)
Internal leakage	At 80 % cracking pressure, max. internal leakage 0.25 mL/min (5 drops/min)
Cracking pressure definition	Pressure at port ① measured bar (psi) at 16.4 mL/min (1 in ³ /min) flow
Reseating pressure	80 % of cracking pressure
Temperature range	-40 °C to 100 °C
Cavity specification	VC08-2 (see technical data sheet)
Working medium	Mineral oil or lubricating synthetic oil
Viscosity range	7.4 – 420 mm ² /s
Temperature range	-54 °C to 107 °C (polyurethane seals)
	-40 °C to 100 °C (NBR seals)
	-26 °C to 204 °C (FKM seals)
Oil contamination level	Minimum cleanliness ISO 4406 18/16/13; 15/13/11 recommended for extended life

Performance Curve (insert type only)



Outline Dimensions



5. Directional Valve

5.1	2RJV1-08MC3.2/1-N Hydraulic locking device	366-369
5.2	CF2-08 Check valve	370-373
5.3	CV08-20 Check valve	374-377
5.4	CV10-20 Check valve	378-381
5.5	CV12-21 Pilot-operated check valve	382-385
5.6	CV-20-002-N-G1-4 Flush-mount check valve	386-389
5.7	CV42-M20 Pilot-operated check valve	390-393
5.8	DC08-4-40-N-25 Hydraulic locking device	394-397
5.9	DC10-4-40-N-25 Hydraulic locking device	398-401
5.10	LS08-30 Shuttle valve	402-405
5.11	XL4CK30 Pilot-operated check valve	406-409
5.12	XLCVB0-G14.00 Flush-mount check valve	410-413
5.13	XLFC08-20B Unidirectional flow-control valve	414-417
5.14	XLFC10-20B Unidirectional flow-control valve	418-421



SOLINER

5.1

2RJV1-08MC3.2/1-N

Directional Valve

Rated Pressure (bar)	200
Max. Flow(L/min)	10 (see performance curve)

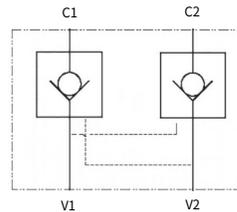
Features

- Stackable
- For vertical mounting

Contents

Description	02
	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

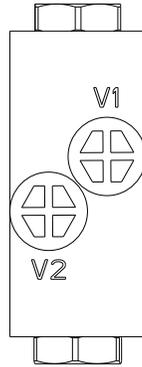
Stackable pilot-operated check valve

Working Principle

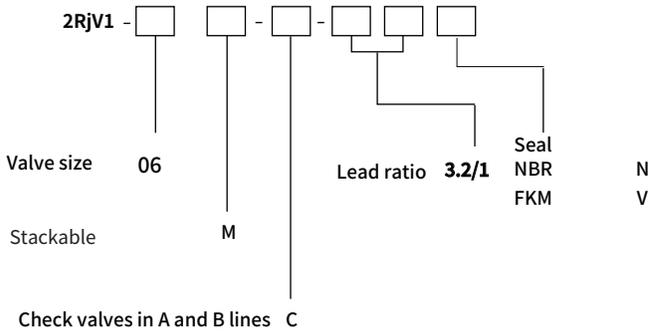
The valve permits free flow V1→C1 and V2→C2; reverse direction is blocked.

When oil flows V1→C1, piston 1 is forced to the right and actuates the opposite check poppet, opening the check path C2→V2.

To ensure reliable poppet closure, the directional valve work ports must be connected to tank in neutral.



Model Description



Materials

Cartridge:

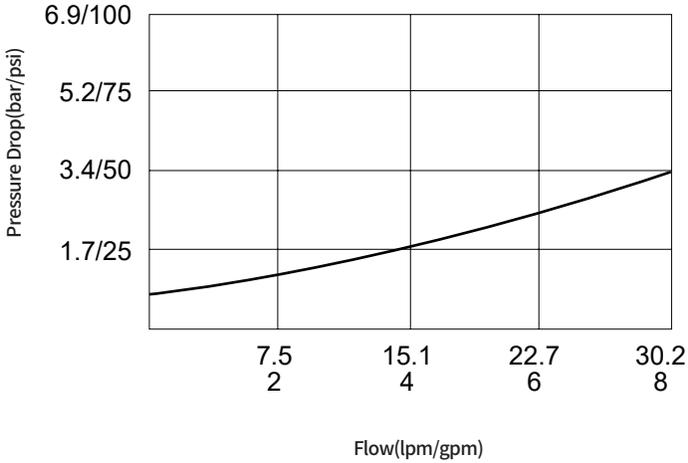
Weight: 0.12 kg (0.26 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Technical Data

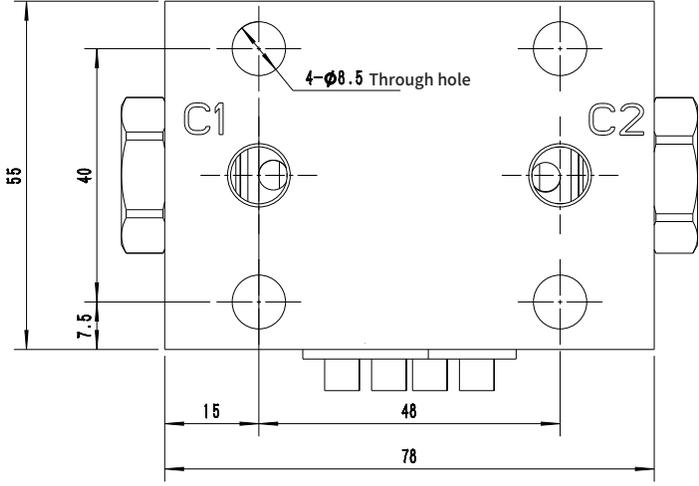
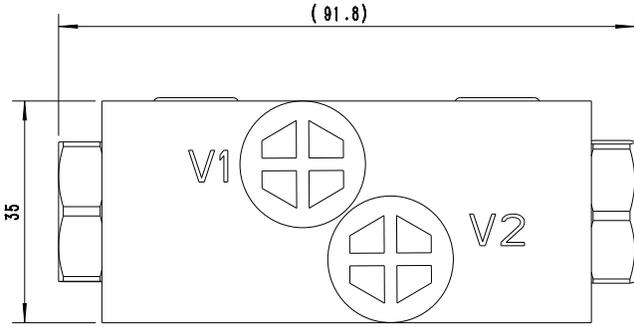
Rated pressure	200bar (2900psi)
Maximum flow	10L/min (2.6gpm)
Area ratio	3.2:1
Check-valve cracking pressure	1.7bar
Port size	V1 and V2: G1/4 (ED seal); C1 and C2: Ø9
Temperature range	-30to80°C
Oil contamination level	Minimum cleanliness level ISO 4406 20/18/15
Viscosity range	2.8~500 mm ² /s

Performance Curve (insert type only)

Spring pressure: 0.34 bar (5 psi)
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





SOLINER

5.2

CF2-08

Check valve

Rated Pressure (bar)	350
Max. Flow(L/min)	38 (see performance curve)

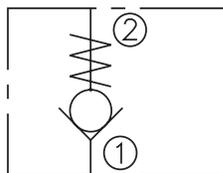
Features

- Hardened seat for long life and low leakage
- Choice of return springs with different back-pressure ratings
- Fully-guided poppet assembly
- Compact size
- Fast, positive shut-off

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge hydraulic check valve for single-line shut-off or load-holding.

Working Principle

Permits flow ①→② and blocks reverse flow. Fully-guided poppet is held closed by the return spring until pressure at ① is sufficient to open port ②.



Model Description

CF2 - 08 -		-	-	-	-	-
		Valve block oil port		Spring specification		
Order plug-in components only	0			5	0.34 bar (5 psi)	
SAE 8	8T			10	0.7 bar (10 psi)	
3/8 Inch BSP	3B			25	1.7 bar (25 psi)	
				50	3.4 bar (50 psi)	
				650	45 bar (650 psi)	
		Seal material				
		NBR (standard)	N			
		FKM	V			

Materials

Cartridge:

Weight: 0.12 kg (0.26 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and check ring (standard).

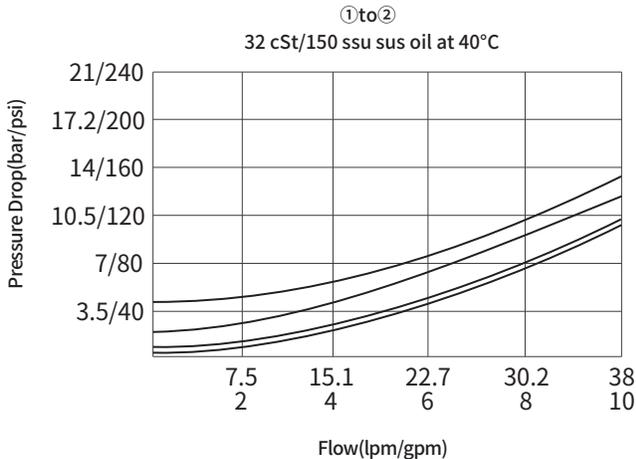
Standard valve block:

Weight: 0.14 kg (0.31 lb); anodized high-strength aluminum alloy 6061-T6, rated to 350 bar (5100 psi); ductile-iron and steel manifolds available; dimensions may vary.

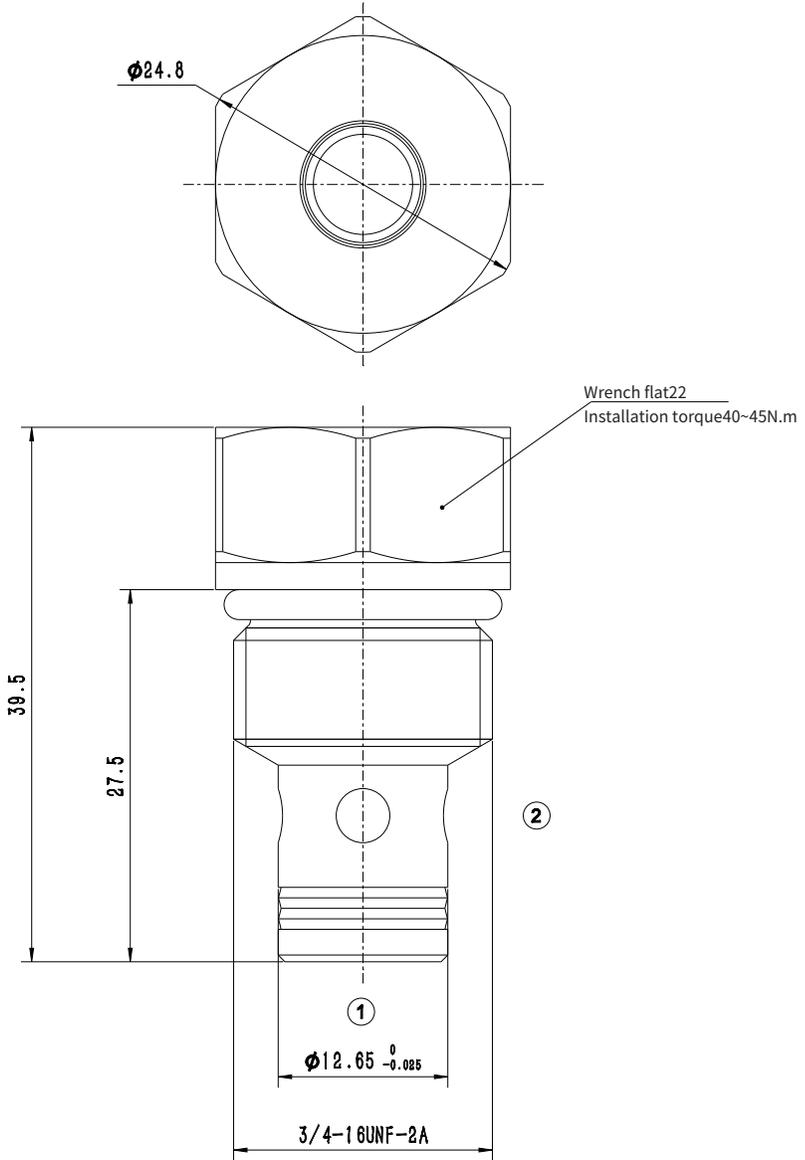
Technical Data

Rated pressure	350 bar (5100 psi)
Maximum flow	38 L/min (10.0 gpm)
Internal leakage	Maximum 0.25 ml/min (5 drops/min) at 350 bar (5100 psi)
Cracking pressure definition	Pressure measured at ① when flow reaches 16.4 ml/min (1 in ³ /min), bar (psi)
Standard cracking pressure	0.34 bar (5 psi); 0.7 bar (10 psi); 1.7 bar (25 psi); 3.4 bar (50 psi)
Temperature range	-40 °C to 120 °C
Cavity specification	VC08-2 (see Technical Data Sheet)
Operating medium	Mineral oil or lubricating synthetic fluid
Viscosity range	7.4 to 420 mm ² /s
Temperature range	-54 °C to 107 °C (Polyurethane seals)
	-40 °C to 100 °C (Nitrile seals)
	-26 °C to 204 °C (Fluorocarbon seals)
Fluid contamination level	Minimum fluid cleanliness ISO 4406 18/16/13, 15/13/11 recommended for extended life

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.3

CV08-20

Check valve

Rated Pressure (bar)	240
Max. Flow(L/min)	30 (see performance curve)

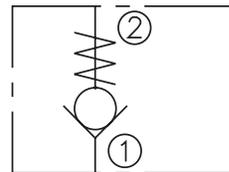
Features

- Hardened seat for long life and low leakage
- Choice of return springs with different back-pressure ratings
- Fully-guided poppet assembly
- Compact size
- Fast, positive shut-off

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge hydraulic check valve for single-line shut-off or load-holding.

Working Principle

Permits flow ①→② and blocks reverse flow. The fully-guided poppet is held closed by the return spring until pressure at ① is sufficient to open port ②.



Model Description

CV08 - 20 -			
Valve block oil port			Spring specification
Order plug-in components only	0		5 0.35 bar (5 psi)
SAE 4	4T		10 0.7 bar (10.1 psi)
SAE 6	6T		14 1.0bar(14.5psi)
SAE 8	8T		36 2.5 bar (36.3 psi)
1/4 Inch BSP	2B		44 3.0 bar (43.5 psi)
3/8 Inch BSP	3B		72 5.0 bar (72.5 psi)
1/2 Inch BSP	4B		100 6.9bar(100psi)
			116 8.0 bar (116 psi)
			130 9.0 bar (130.5 psi)
			217 15.0 bar (217.5 psi)
			Seal material
			N NBR (standard)
			V FKM

Materials

Cartridge:

Weight: 0.06 kg (0.13 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and check ring (standard).

Standard valve block:

Weight: 0.146kg (0.36 lb); anodized high-strength aluminum alloy 6061-T6, rated to 350 bar (5100 psi); ductile-iron and steel manifolds available; dimensions may vary.

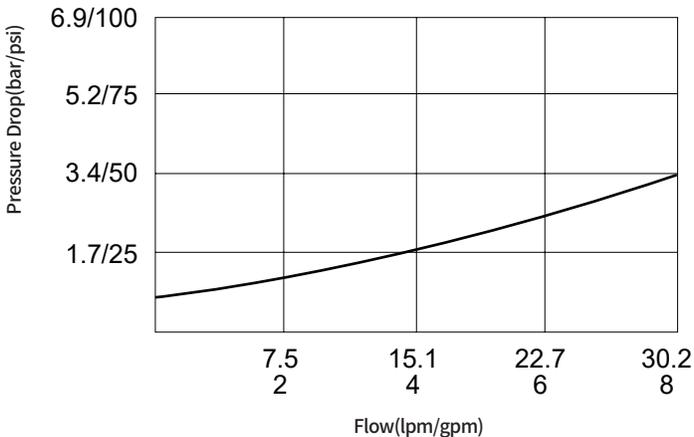
Technical Data

Rated pressure	350 bar (5100 psi)
Maximum flow	38 L/min (10.0 gpm)
Internal leakage	≤0.1 mL/min (2 drops/min) at 240 bar
Cracking pressure definition	Pressure measured at ① when flow reaches 16.4 ml/min (1 in ³ /min), bar (psi)
Standard cracking pressure	0.34 bar (5 psi); 0.7 bar (10 psi); 1.7 bar (25 psi); 3.4 bar (50 psi)
Temperature range	-40 °C to 120 °C
Cavity specification	VC08-2 (see Technical Data Sheet)
Operating medium	Mineral oil or lubricating synthetic fluid
Viscosity range	7.4 to 420 mm ² /s
Temperature range	-54 °C to 107 °C (Polyurethane seals)
	-40 °C to 100 °C (Nitrile seals)
	-26 °C to 204 °C (Fluorocarbon seals)
Fluid contamination level	Minimum fluid cleanliness ISO 4406 18/16/13, 15/13/11 recommended for extended life

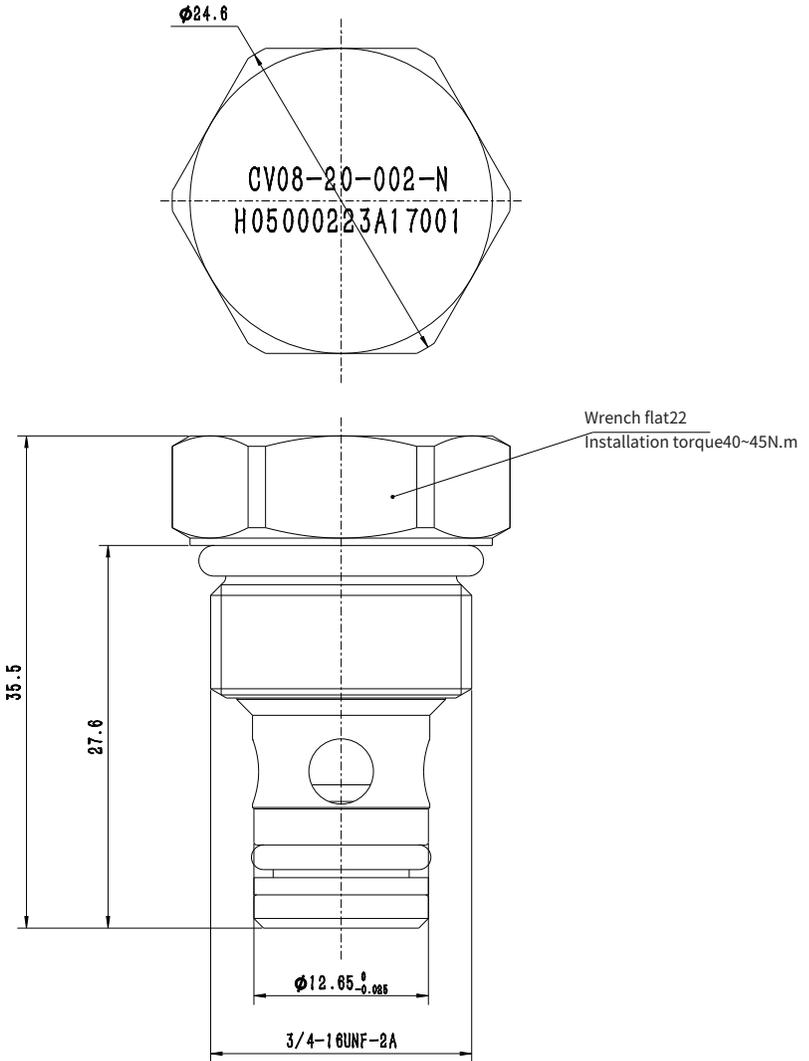
Performance Curve (insert type only)

①to②

Spring pressure: 0.7 bar / 10 psi
32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





5.4

CV10-20

Check valve

Rated Pressure (bar)	210
Max. Flow(L/min)	120 (see performance curve)

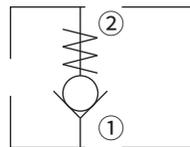
Features

- Industry-common cavity
- Hardened components for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

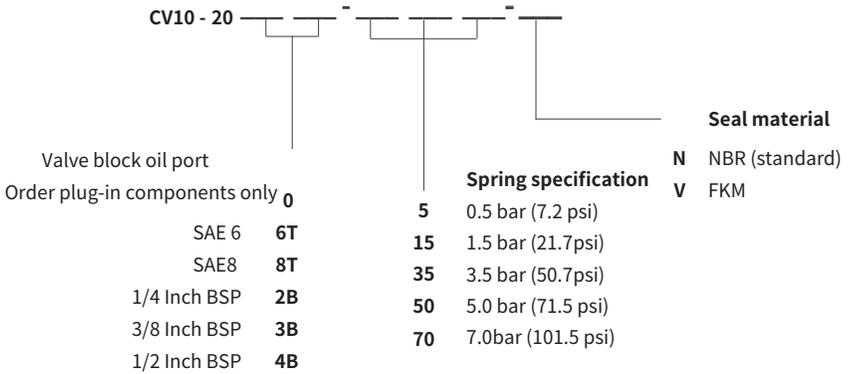
Screw-in cartridge hydraulic check valve for single-line shut-off or load-holding .

Working Principle

Model CV10-20: permits flow ①→② and blocks reverse flow; fully-guided poppet held closed by return spring until pressure at ① is sufficient to open port ②.



Model Description



Materials

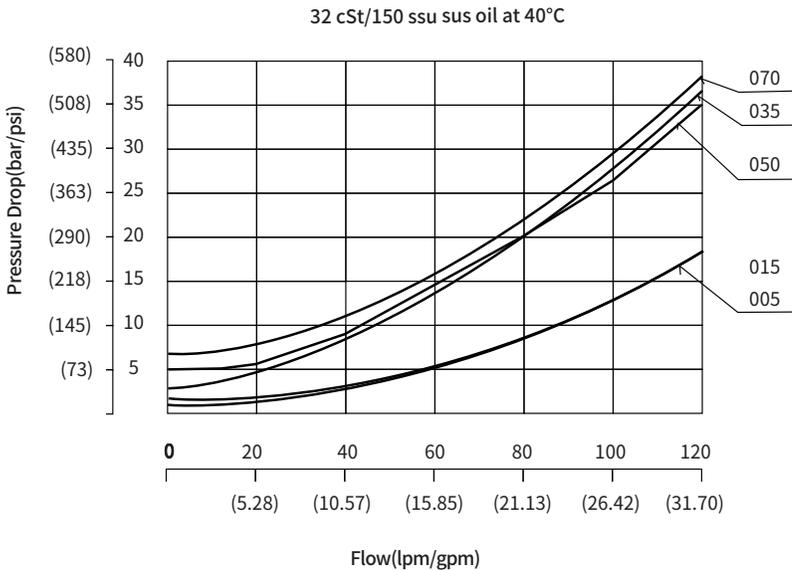
Cartridge:

Weight: 0.12 kg (0.26 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

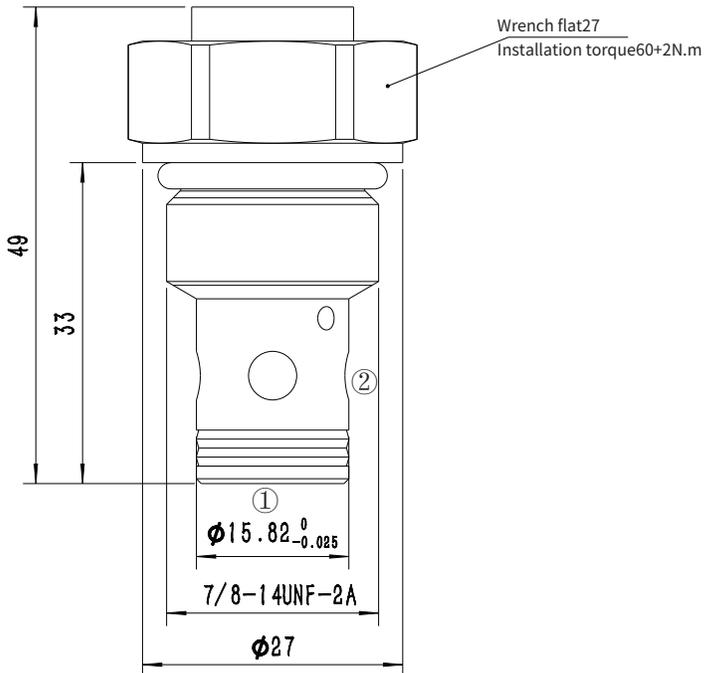
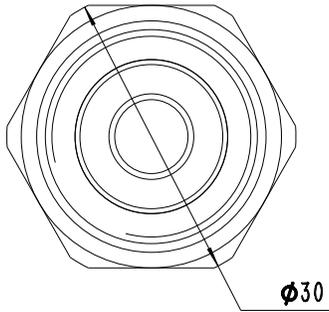
Technical Data

Rated pressure	420bar (6091psi)
Maximum flow	120L/min (31.7gpm)
Cracking pressure	0.5bar(7.2psi) 1.5bar(21.7psi) 3.5bar(50.7psi) 5.0bar(71.5psi) 7.0bar(101.5psi)
Operating medium	Hydraulic fluid of performance grade (HL, HLP) to DIN 51524
Temperature range	-30 ~+10°C (NBR seals)
	-20 ~+120°C (FKMseals)
Valve tightening torque	60 +2Nm(44.25 +1.47lb.ft)
Cavity specification	VC10-2 (see Technical Data Sheet)
Fluid contamination level	ISO 4406 class 21/18/15
Viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.5

CV12-21

Pilot-operated check valve

Rated Pressure (bar)	240
Max. Flow(L/min)	113.6 (see performance curve)

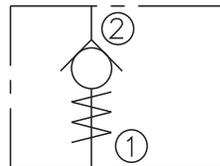
Features

- Industry-common cavity
- Hardened components for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol

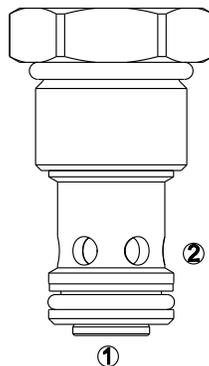


Description

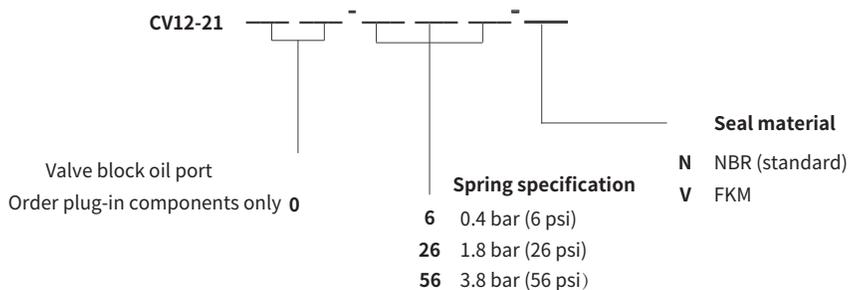
Screw-in cartridge pilot-operated check valve for single-line shut-off or load-holding duty.

Working Principle

Permits flow ②→① and blocks reverse flow; fully-guided poppet held closed by return spring until pressure at ② is sufficient to open port ①.



Model Description



Materials

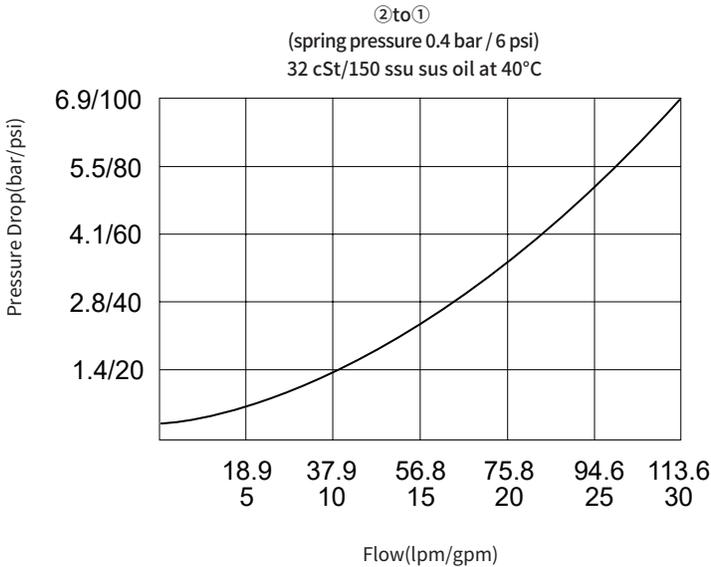
Cartridge:

Weight: 0.08 kg (0.17 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

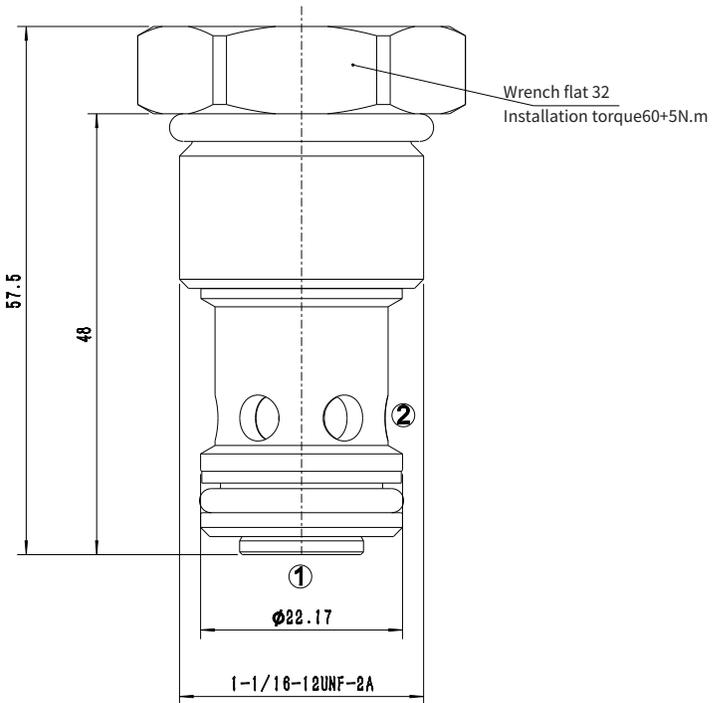
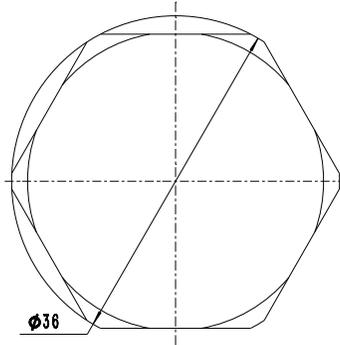
Technical Data

Rated pressure	240bar (3500psi)
Maximum flow	113.6L/min (30gpm)
Cracking pressure	0.4bar (6psi) 1.8bar (26psi) 3.8bar (56psi)
Operating medium	Hydraulic fluid of performance grade (HL, HLP) to DIN 51524
Temperature range	-40 ~+120°C
Internal leakage	Max. 0.25 mL/min (5 drops/min) at 240 bar (3500 psi)
Valve tightening torque	60 +5 (44.25 +1.47)Nm(lbf.ft)
Cavity specification	VC12-2 (see Technical Data Sheet)
Fluid contamination level	ISO 4406 class 21/18/15
Viscosity range	7.4~420 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.6

CV-20-002-N-G1/4

Flush-mount check valve

Rated Pressure (bar)	350
Max. Flow(L/min)	22.7 (see performance curve)

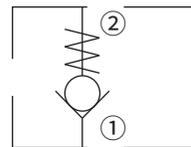
Features

- Hardened seat for long life and low leakage
- Compact size
- Fast, positive shut-off

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

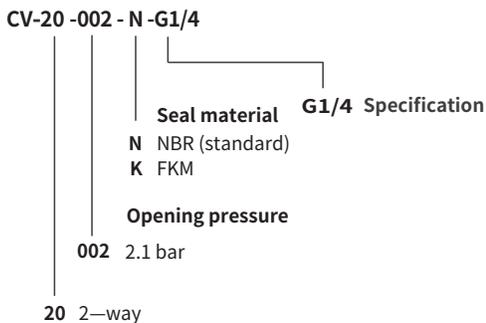
Embedded, poppet-type hydraulic check valve for single-line shut-off or load-holding duty.

Working Principle

Permits flow ①→② and blocks reverse flow; fully-guided poppet held closed by return spring until pressure at ① is sufficient to open port ②.



Model Description



Materials

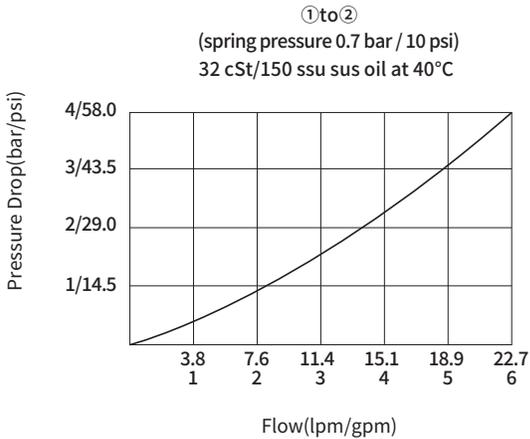
Cartridge:

Weight: 0.05 kg (0.11 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring .

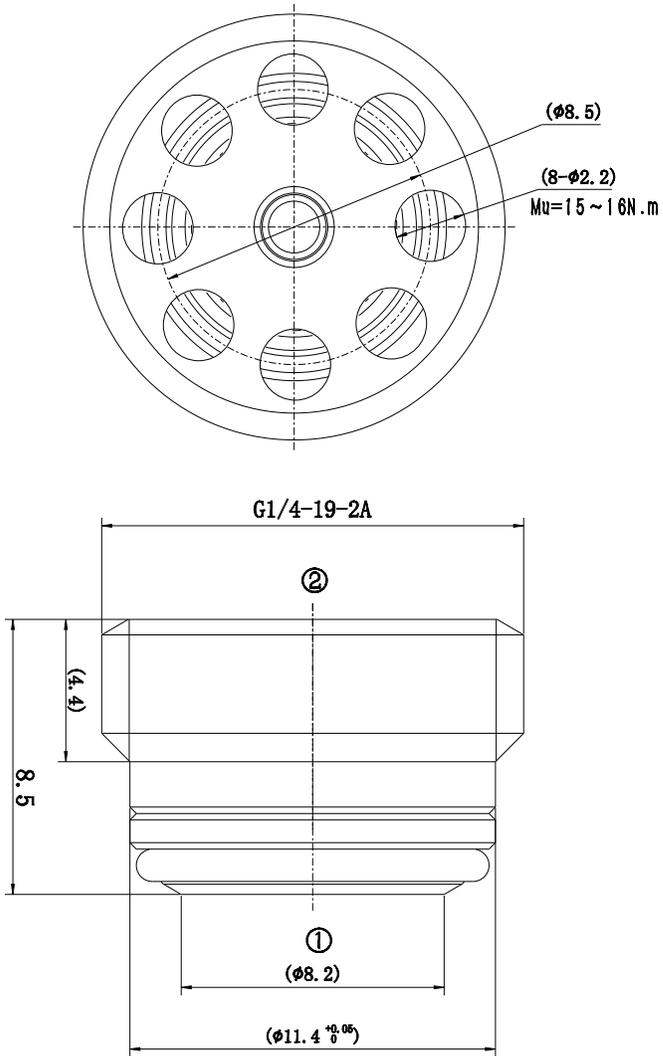
Technical Data

Rated pressure	350 bar (5100 psi)
Maximum flow	22.7 L/min (6.0 gpm)
Internal leakage	<3 drops/min (0.15 mL/min) @ 350 bar
Cavity specification	(see figure below)
Temperature range	-40 °C to 100 °C (Nitrile seals)
	-26 °C to 204 °C (Fluorocarbon seals)
Operating medium	Mineral oil or lubricating synthetic fluid
Viscosity range	7.4 to 420 mm ² /s
Fluid contamination level	Minimum ISO 4406 18/16/13, 15/13/11 recommended for longer life

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.7

CV42-M20

Pilot-operated check valve

Rated Pressure (bar)	240
Max. Flow(L/min)	378.5(see performance curve)

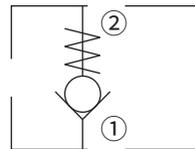
Features

- Industry-common cavity
- Hardened components for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol

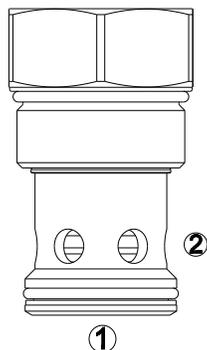


Description

Screw-in cartridge hydraulic check valve for single-line shut-off or load-holding duty.

Working Principle

Permits flow ①→② and blocks reverse flow; fully-guided poppet held closed by return spring until pressure at ① is sufficient to open port ②.



Model Description

CV42-M20	-	-	-	Seal material
Valve block oil port				N NBR (standard)
Order plug-in components only	0			V FKM
		5	0.35bar(5psi)	
		15	1.0bar(15psi)	
		30	2.1bar(30psi)	
		60	4.1bar(60psi)	
		100	6.9bar(100psi)	

Materials

Cartridge:

Weight: 0.43 kg (0.95 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and check ring (standard).

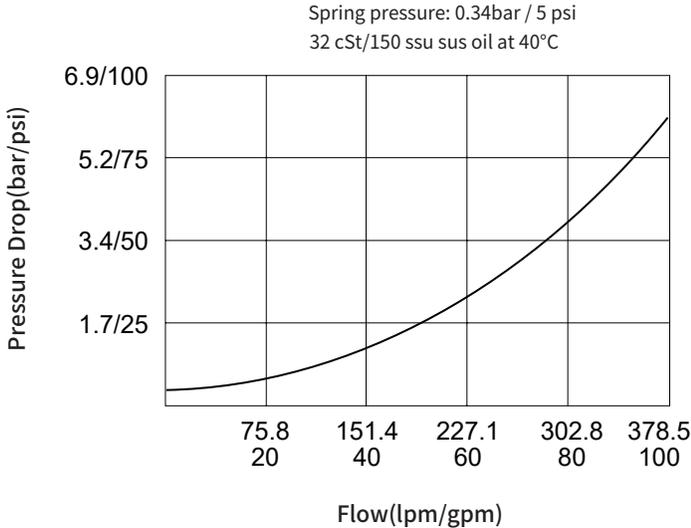
Standard valve block:

Weight: 1.63kg (3.60 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3500 psi); ductile-iron and steel manifolds available; dimensions may vary.

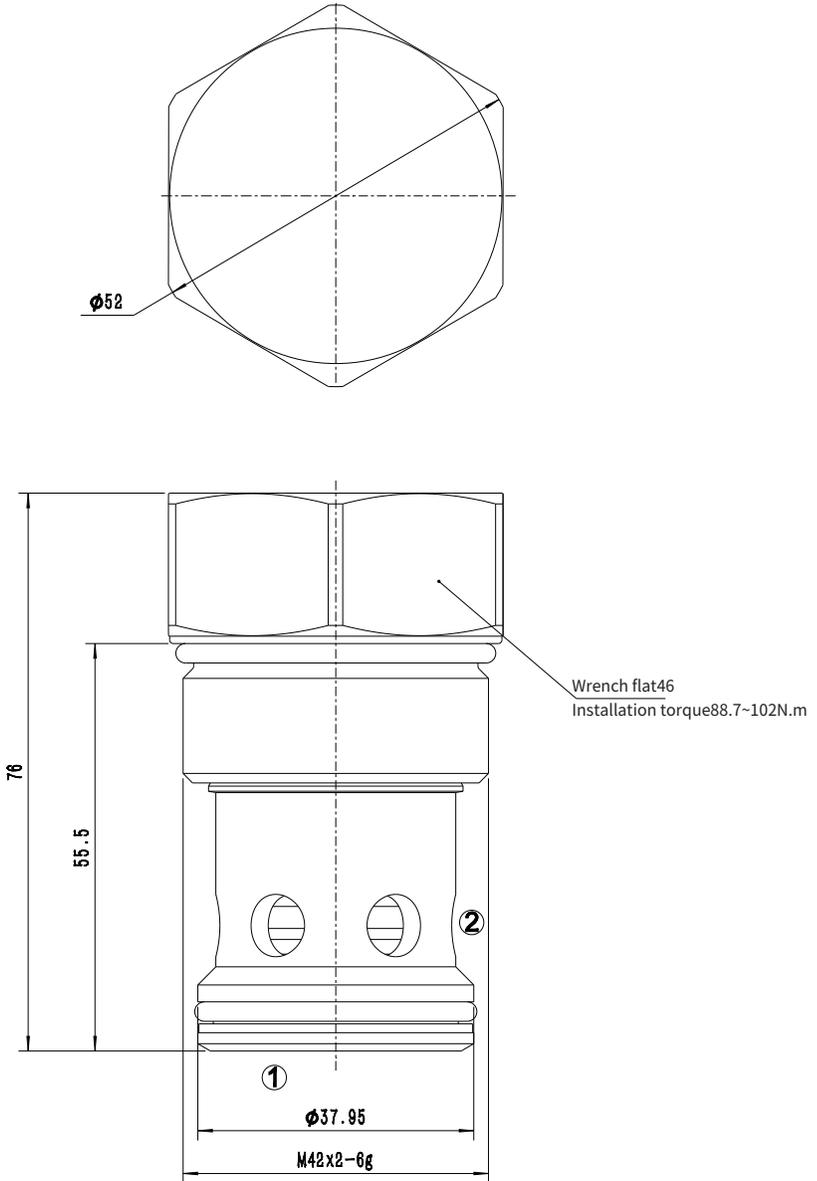
Technical Data

Rated pressure	240bar (3500psi)
Maximum flow	378.5L/min (31.7gpm)
Cracking pressure	0.35bar (5psi) 1.7bar (25psi) 4.1bar (60psi) 6.9bar (100psi)
Operating medium	Pressure measured at ① when flow reaches 16.4 ml/min (1 in ³ /min), bar (psi)
Temperature range	-40 ~+120°C
Internal leakage	Max. 0.25 mL/min (5 drops/min) at 240 bar (3500 psi)
Valve tightening torque	60 +2 (44.25 +1.47)Nm(lbf.ft)
Cavity specification	VC42-2M (see Technical Data Sheet)
Fluid contamination level	ISO 4406 class 21/18/15
Viscosity range	7.4~420 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.8

DC08-4-40-N-25

Hydraulic locking device

Rated Pressure (bar)	240
Max. Flow(L/min)	19 (see performance curve)

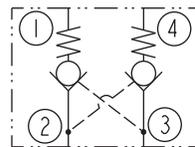
Features

- Hardened seat for long life and low leakage
- Low pressure loss

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Double pilot-operated check valve for blocking or load-holding circuits.

Working Principle

Model DC08-4-40 blocks flow in directions ①→② and ④→③. When pressure is applied at port ② and/or port ③, reverse flow is allowed. The valve's pilot ratio is 3:1, so the pressure in the pilot line (port ② or ③) must be at least one-third of the load pressure at port ④ or ① to open the path and allow oil to exit from port ④ or ①. Under static or no-load conditions, a 25 psi spring ensures the valve port remains closed. A reset spring of 135 psi is available as an option.



Model Description

DC08-4-40-N-25

Seal material

N NBR (standard)NBR (standard)

Y FKM

P PU

Spring specification

1.7 bar (25 psi), standard

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

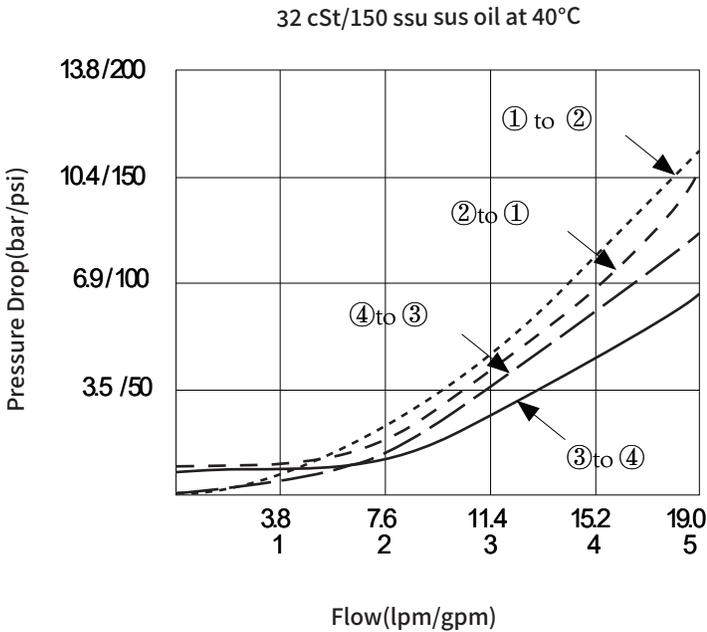
Standard valve block:

Weight: 0.34kg (0.74 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3500 psi); ductile-iron and steel manifolds available; dimensions may vary.

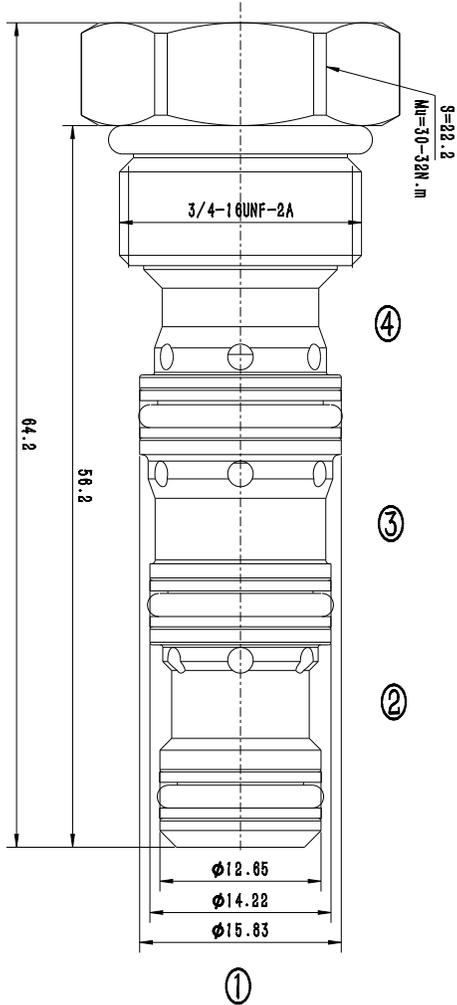
Technical Data

Rated pressure	240bar (3500psi)
Maximum flow	30.3L/min (8gpm)
Check-valve spring preload	1.7bar (25psi)
Temperature range	-40 ~+120 °C (NBR seals)
Internal leakage	<0.25 ml/min (5 drops/min) @210 bar
Valve tightening torque	30~32N.m
Fluid contamination level	ISO 4406 class 21/18/15
Viscosity range	10~500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.9

DC10-4-40-N-25

Hydraulic locking device

Rated Pressure (bar)	240
Max. Flow(L/min)	19 (see performance curve)

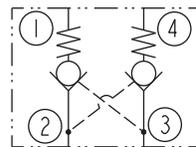
Features

- Hardened seat for long life and low leakage
- Low pressure loss

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Double pilot-operated check valve for blocking or load-holding circuits.

Working Principle

Model DC10-4-40 blocks flow ①→② and ④→③; reverse flow is allowed when pressure is applied at port ② and/or ③.

With a 3:1 pilot ratio, pilot pressure (port ② or ③) must be $\geq 1/3$ of the load pressure (port ④ or ①) to open the path and allow oil to exit from ④ or ①.

Under static or no-load conditions a 25 psi spring ensures closure; a 135 psi reset spring is available.



Model Description

DC10-4-40-N-25

Seal material

N NBR (standard)

Y FKM

P Polyurethane

Spring specification

1.7 bar (25 psi), Standard version

Materials

Cartridge:

Weight: 0.13 kg (0.28 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

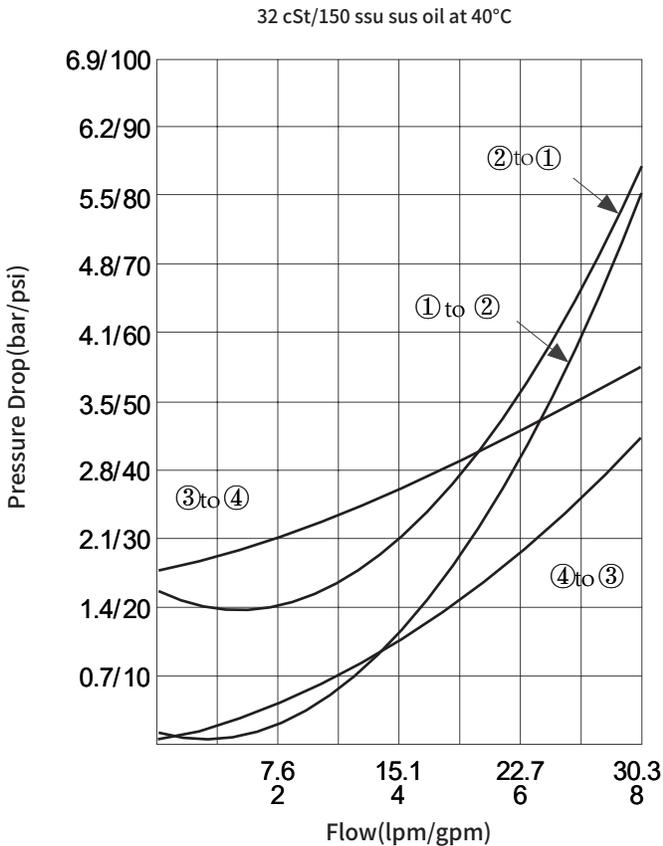
Standard valve block:

Weight: 0.34kg (0.74 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3500 psi); ductile-iron and steel manifolds available; dimensions may vary.

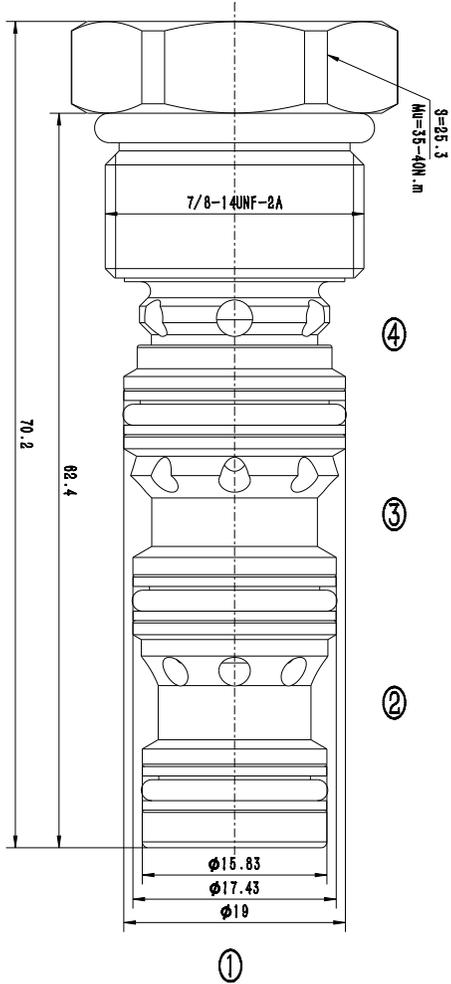
Technical Data

Rated pressure	240bar (3500psi)
Maximum flow	30.3L/min (8gpm)
Check-valve spring preload	1.7bar (25psi)
Temperature range	-40 ~+120 °C (NBR seals)
Internal leakage	<0.25 ml/min (5 drops/min) @210 bar
Valve tightening torque	35~40N.m
Fluid contamination level	ISO 4406 class 21/18/15
Viscosity range	10~500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.10

LS08-30

Shuttle valve

Rated Pressure (bar)	240
Max. Flow(L/min)	18.9 (see performance curve)

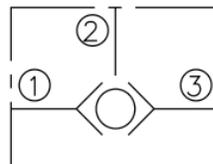
Features

- Sensitive to changes in load direction
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge hydraulic shuttle valve for priority high-pressure line selection.

Working Principle

Model LS08-30 permits flow from the higher-pressure port ① or ③ to port ②. Commonly used to direct fluid from the high-pressure side of a bidirectional hydraulic motor to a pressure-release hydraulic brake.



Model Description

LS08-30		-		-	
		┌───┬───┬───┐		┌───┐	
		│		│	
Valve block oil port				Seal material	
Order plug-in components only		0		N	NBR (standard)
SAE 4		4T		V	FKM
SAE 6		6T			
1/4 Inch	BSP*	2B			
3/8 Inch	BSP*	3B			
		*BSP Valve block			

Materials

Cartridge:

Weight: 0.08 kg ; steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and check ring (standard).

Standard valve block:

Weight: 0.36kg ; anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3500 psi); ductile-iron and steel manifolds available; dimensions may vary.

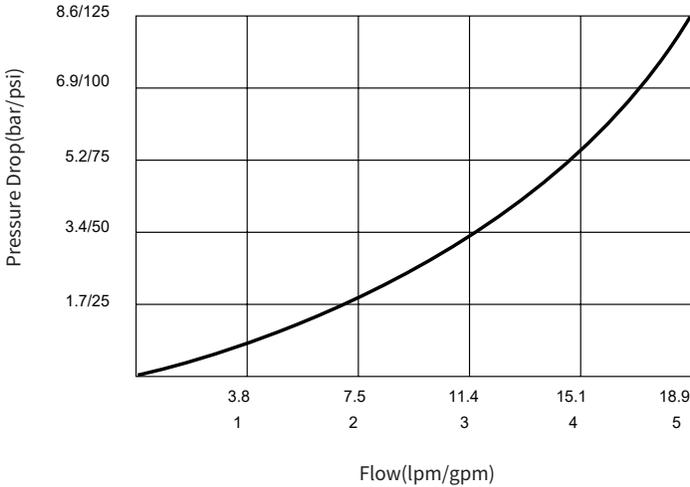
Technical Data

Rated pressure	240 bar (5100 psi)
Maximum flow	18.9 L/min (gpm)
Proof pressure	390 bar (5700 psi) bar (psi)
Operating medium	Mineral oil or lubricating synthetic fluid with viscosity 7.4–420 cSt (50–2000 SUS)
Temperature range	-40 to 120 °C (Standard nitrile rubber seal)
Internal leakage	Maximum 0.25 mL/min (5 drops/min) at 207 bar (3000 psi)
Cavity	VC08-3 (see Technical Data Sheet)

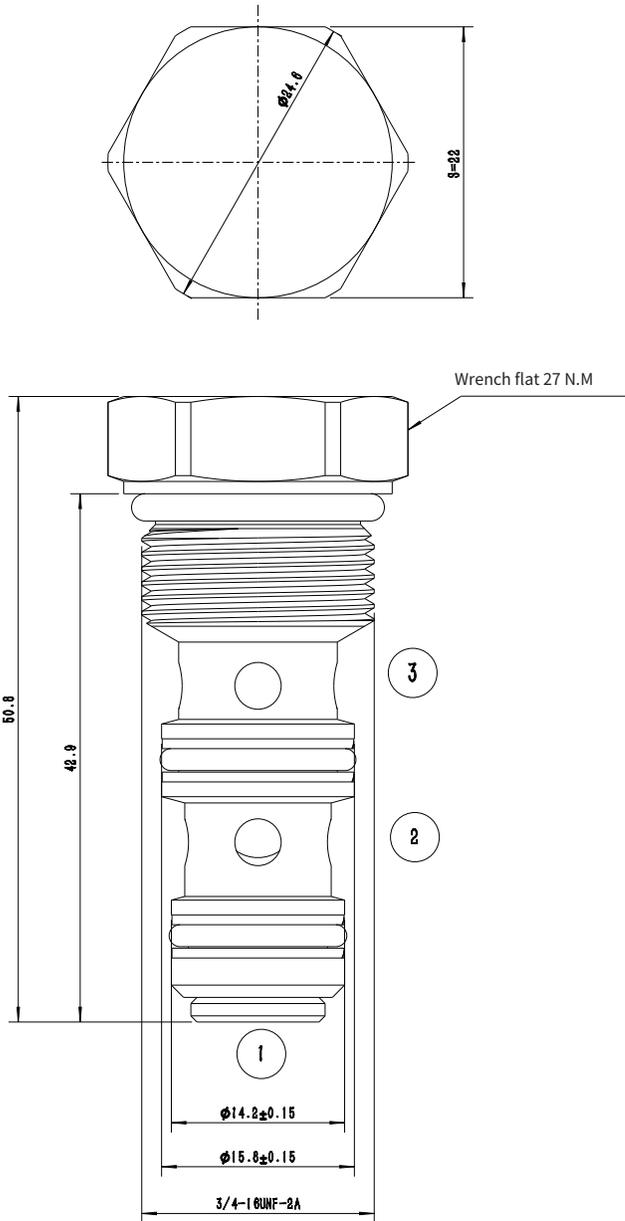
Performance Curve (insert type only)

① / ③ to ②

32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





5.11

XL4CK30

Pilot-operated check valve

Rated Pressure (bar)	350
Max. Flow(L/min)	30 (see performance curve)

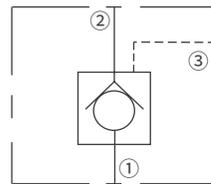
Features

- Industry-common cavity
- Hardened components for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge pilot-operated check valve for single-line shut-off or load-holding duty.

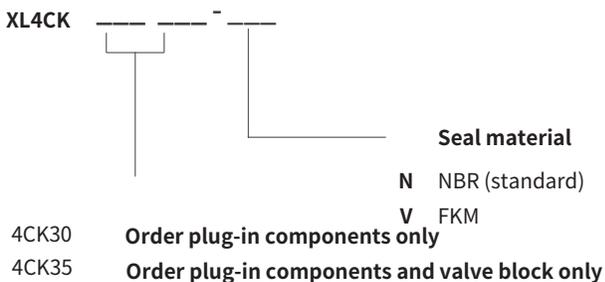
Working Principle

Permits flow ②→① and blocks reverse flow; when pressure at ③ is sufficient, oil flows ①→②.

Under static or no-load conditions the spring preload keeps the valve port closed.



Model Description



Materials

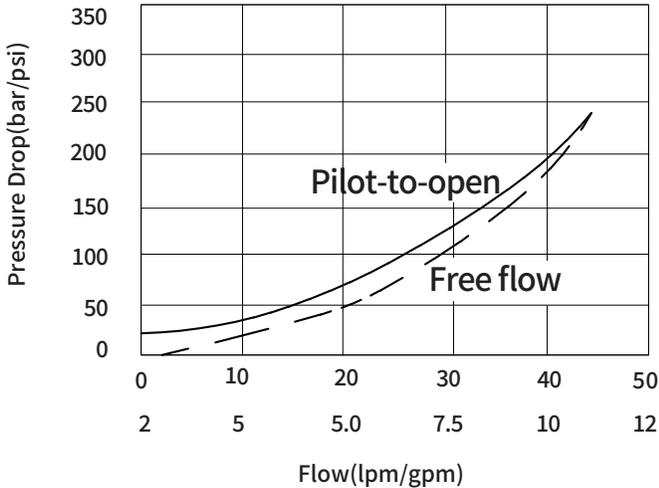
Cartridge:

Weight: 0.08 kg (0.18 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

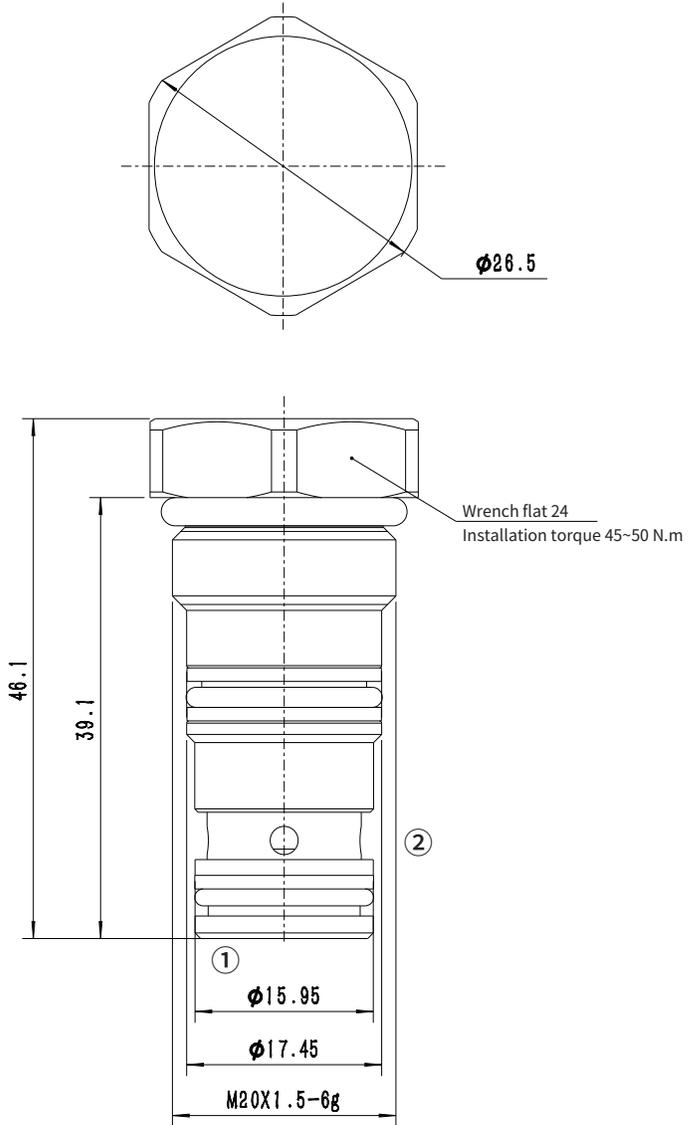
Technical Data

Rated pressure	350bar (5000psi)
Maximum flow	30 L/min (8gpm)
Cracking pressure	3:1
Operating medium	Hydraulic fluid of performance grade (HL, HLP) to DIN 51524
Temperature range	-20 ~+90 °C
Internal leakage	0.3 mL/min
Valve tightening torque	45 (33) Nm(lbf.ft)
Cavity specification	A6610 (see Technical Data Sheet)
Fluid contamination level	ISO 4406 class 21/18/15
Viscosity range	5 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions





SOLINER

5.12

XLCVB0-G14.00

Flush-mount check valve

Rated Pressure (bar)	350
Max. Flow(L/min)	22.7 (see performance curve)

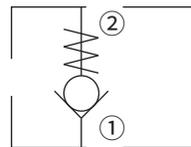
Features

- Hardened seat for long life and low leakage
- Compact size
- Fast, positive shut-off

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Embedded, poppet-type hydraulic check valve for single-line shut-off or load-holding duty

Working Principle

Permits flow ①→② and blocks reverse flow.

Fully-guided poppet is held closed by the return spring until pressure at ① is sufficient to open port ②.



Model Description

XLCVB0-G14.00

Specification

G14

G1/4

Materials

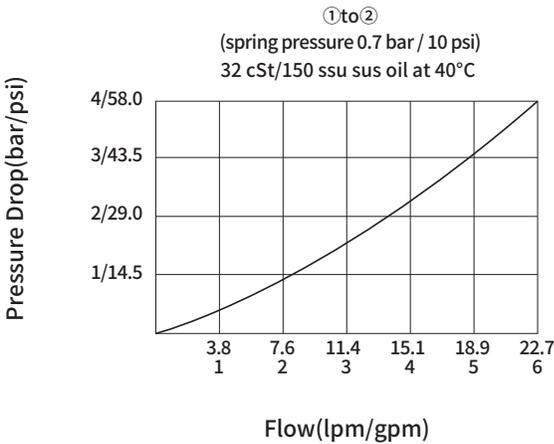
Cartridge:

Weight: 0.06 kg (0.11 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

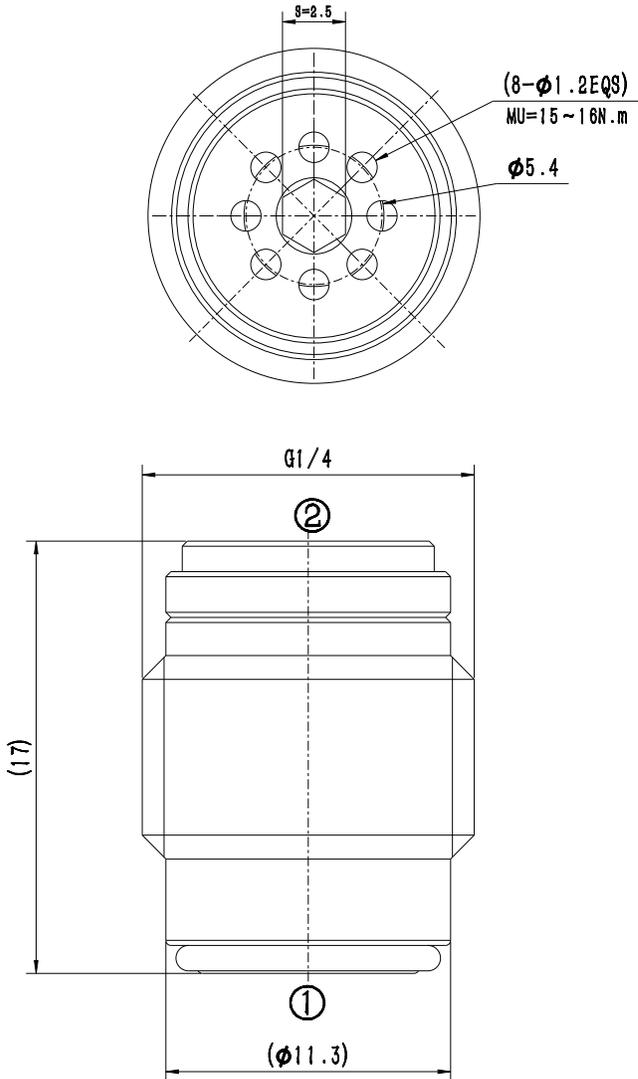
Technical Data

Rated pressure	350 bar (5 100 psi)
Maximum flow	22.7 L/min (6.0 gpm)
Internal leakage	<2 drops/min (0.10 ml/min) at 350 bar
Cavity specification	(see figure below)
Cracking pressure	0.3 bar (4.35 psi)
Temperature range	-40 °C to 100 °C (NBR seals)
Operating fluid	Mineral oil or lubricating synthetic fluid
Viscosity range	7.4 – 420 mm ² /s
Fluid cleanliness level	Minimum ISO 4406 18/16/13; 15/13/11 recommended for extended life

Performance Curve (insert type only)



Outline Dimensions





5.13

XLFC08-20B

Unidirectional flow-control valve

Rated Pressure (bar)	240
Max. Flow(L/min)	42 (see performance curve)

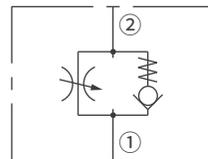
Features

- Industry-common cavity
- Hardened components for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol

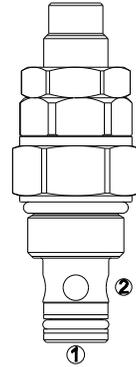


Description

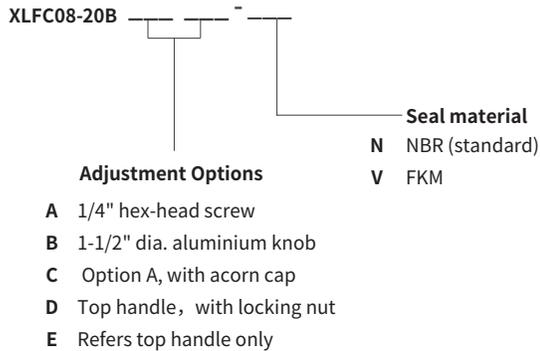
Unidirectional flow-control valve

Working Principle

Turning the adjuster counter-clockwise moves the variable orifice from fully closed to fully open.



Model Description



Materials

Cartridge:

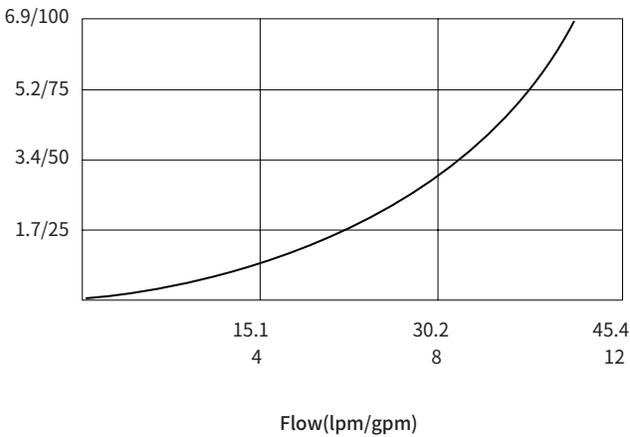
Weight: 0.1 kg (0.22 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

Technical Data

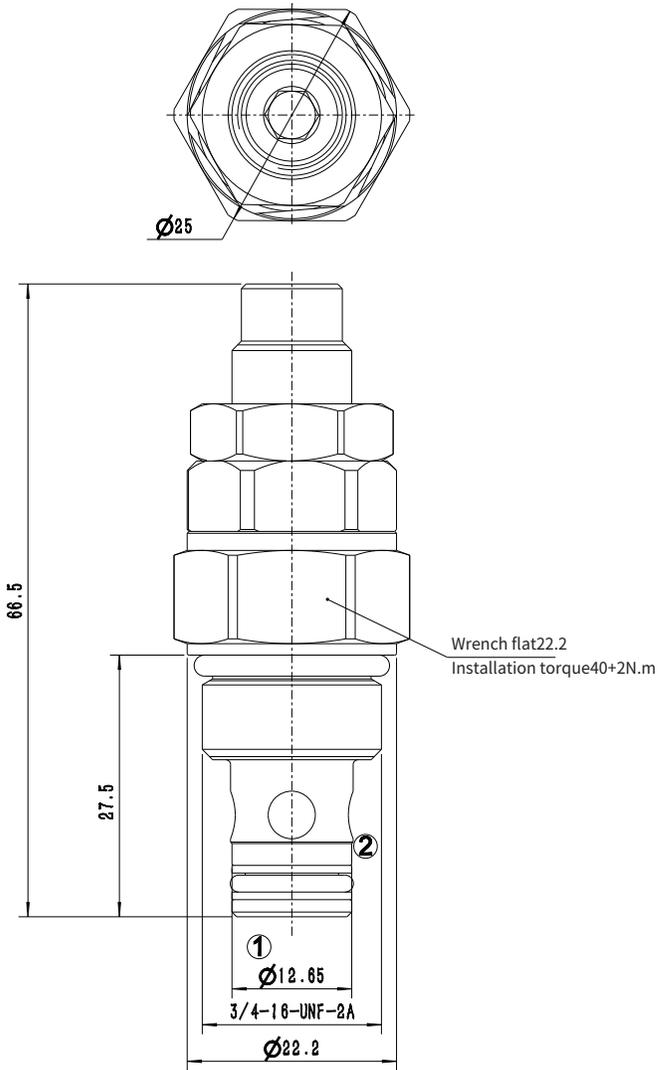
Rated pressure	240 bar (3 500 psi)
Maximum flow	42 L/min (11 gpm) at 7 bar (100 psi) ΔP, 3.5 turns fully open
Operating fluid	DIN 51524 HL/HLP hydraulic fluids
Temperature range	-40 °C to +100 °C
Internal leakage	0.25 ml/min (5 drops/min) max, closed
Valve tightening torque	CV08-2 (see technical data)
Fluid contamination level	ISO 4406 21/18/15
Viscosity range	7.4 – 420 mm ² /s

Performance Curve (insert type only)

Fully open
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





SOLINER

5.14

XLFC10-20B

Unidirectional flow-control valve

Rated Pressure (bar)	240
Max. Flow(L/min)	45.4 (see performance curve)

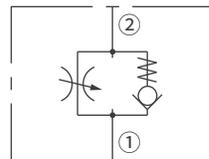
Features

- Industry-common cavity
- Hardened components for extended durability

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol

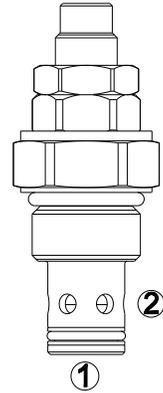


Description

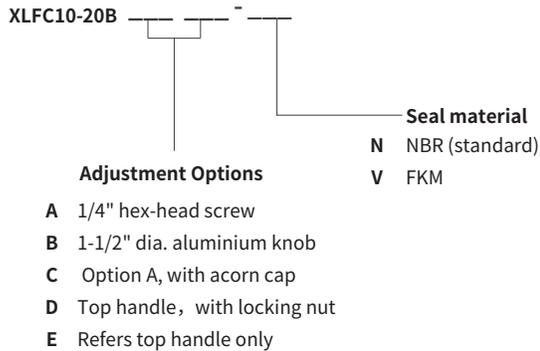
Screw-in cartridge, variable orifice, throttle valve with integral check.

Working Principle

Turning the adjuster counter-clockwise moves the variable orifice from fully closed to fully open.



Model Description



Materials

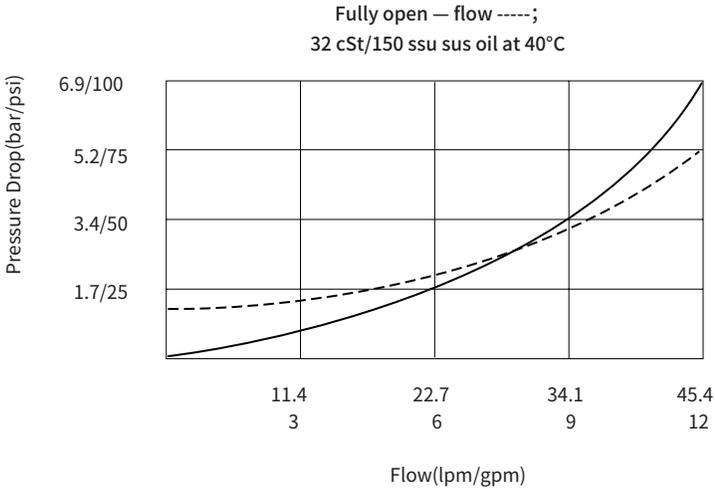
Cartridge:

Weight: 0.17 kg (0.37lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU ring (standard).

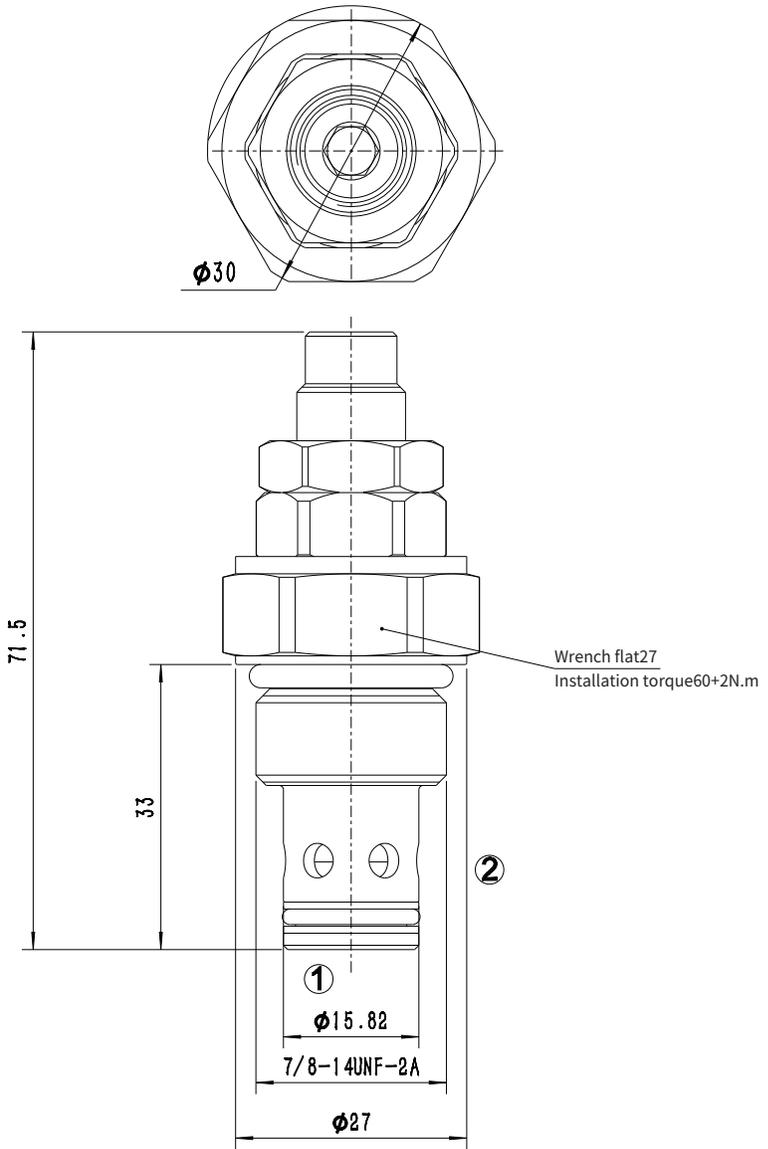
Technical Data

Rated pressure	240 bar (3 500 psi)
Maximum flow	45.4 L/min (11 gpm) at 7 bar (100 psi) ΔP, 3 turns fully open
Operating fluid	DIN 51524 HL/HLP hydraulic fluids
Temperature range	-40 °C to +100 °C
Internal leakage	0.50 ml/min (10 drops/min) max, closed
Valve tightening torque	CV10-2 (see technical data)
Fluid contamination level	ISO 4406 21/18/15
Viscosity range	7.4 - 420 mm ² /s

Performance Curve (insert type only)



Outline Dimensions



Contents

6. Flow control valve

6.1 XLFRS0-G14.0N.070 Pressure-compensated flow control valve 423-426



SOLINER

6.1

XLFRS0-G14.0N.070

Pressure-compensated flow control valve

Rated Pressure (bar) 250
 Max. Flow(L/min) 7 (see performance curve)

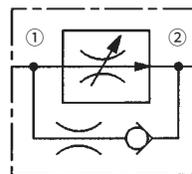
Features

- Provides independent load-speed control regardless of pressure variations
- Hardened components for long life
- Quiet, preset response
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Embedded, fixed-orifice, pressure-compensated flow regulator.

Working Principle

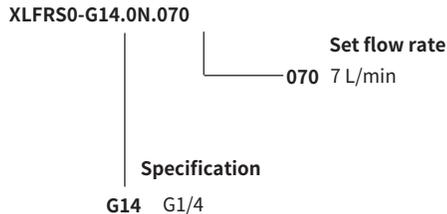
XLFRS0 is a pressure-compensated flow-control valve that maintains a constant outlet flow via an integral control mechanism; flow is essentially independent of system pressure variations. The valve combines a fixed orifice with a pressure-compensating spool: the orifice sets the flow range and can be manually adjusted within its specified range.

When oil flows from port 1 to port 2 the orifice creates a pressure drop; this differential acts on the control-piston area, moving the compensator to a force-balanced position against the spring. If flow increases (higher ΔP) the compensator reduces the control orifice until balance is restored, giving constant flow. In the reverse direction the valve opens a free-flow path.

Note: if the required control differential is not achieved the valve operates as an uncompensated throttle.



Model Description



Materials

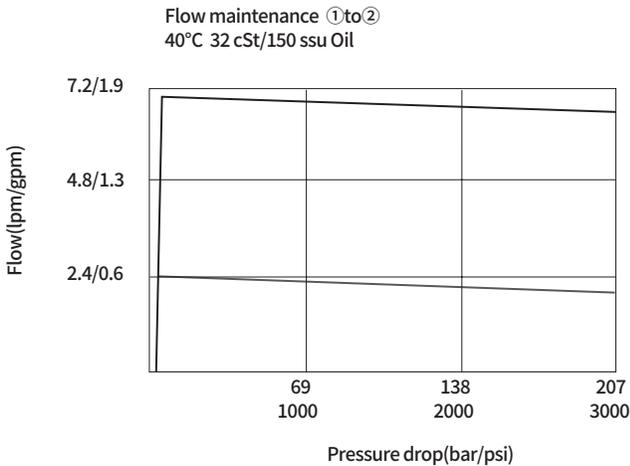
Cartridge:

Weight: 0.12 kg (0.26 lb); steel, working surfaces hardened; outer surface zinc-plated; NBR O-ring and PU check ring (standard).

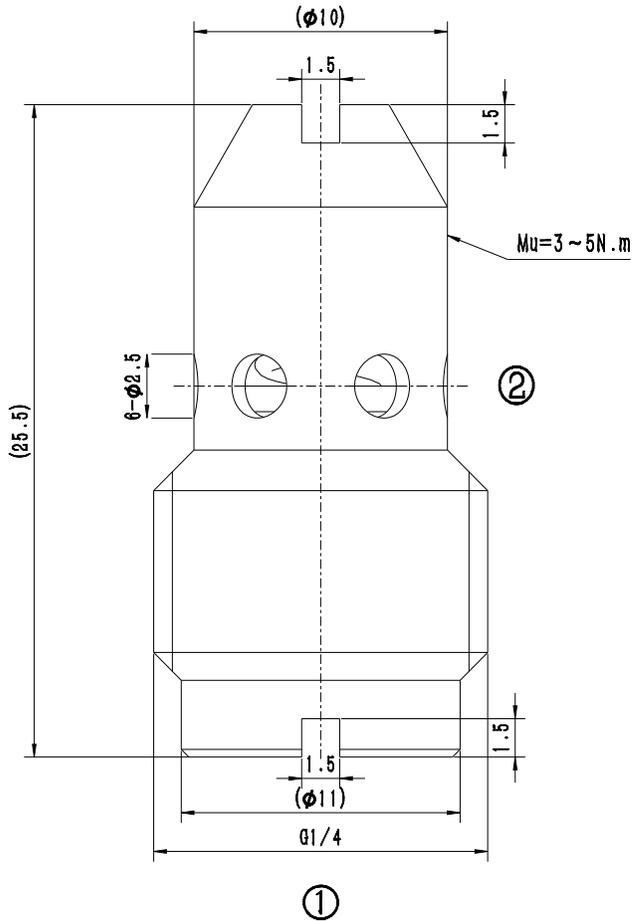
Technical Data

Rated Pressure	350bar (5100psi)
Maximum Flow	7L/min (1.85gpm)
Working medium	Mineral oil with power level (HL、HLP) to DIN 51524
Valve tightening torque	3 +2Nm(2.21 +1.48lbf.ft)
Cavity detail	(see below)
Fluid cleanliness	ISO 4406 21/18/15
Viscosity range	10 ~ 500 mm ² /s

Performance Curve (insert type only)



Outline Dimensions



7. Logic valve

7.1	EP08-3-35 Hydraulic control logic valve	428-431
7.2	EP10-3-S35 Hydraulic control logic valve	432-435
7.3	EP12-3-S35 Hydraulic control logic valve	436-439
7.4	EP16-3-S35 Hydraulic control logic valve	440-443



SOLINER

7.1

EP08-3-35

Hydraulic control logic valve

Rated Pressure (bar)	350
Max. Flow(L/min)	37.9 (see performance curve)

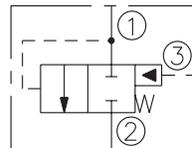
Features

- Versatile and widely applicable
- Low pressure loss
- Industry-standard cavity
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, spool-type hydraulic directional element; used with other directional, pressure and flow controls to provide multiple functions.

Working Principle

Screw-in cartridge, spool-type hydraulic directional element; used with other directional, pressure and flow controls to provide multiple functions. EP08-3-35 acts as a pilot-to-close directional valve: with no pressure at ③, flow ①→② occurs as soon as pressure at ① overcomes the spring preload.



Model Description

EP08-3-35		-	-	-	-
Valve block oil port				Spring specification	
Order plug-in components only		0		10	0.7 bar (10 psi)
SAE 6 (Ductile iron)		6TD		40	2.8 bar (40 psi)
SAE 6 (Steel)		6TS		80	5.5 bar (80 psi)
SAE 6 (Aluminum)		6T		110	7.6 bar (110 psi)
Note: Aluminum valve block		240		150	10.3 bar (150 psi)
Max. Rated Pressure: bar		(3500 psi)			
Seal material					
NBR (standard)		N			
		FKM		V	
		PU		P	

Materials

Cartridge:

Weight: 0.11 kg (0.25 lb); steel, hardened working surfaces, zinc-plated exterior; seals: NBR O-rings and PU back-up rings (standard)

Standard valve block:

Weight: 0.64 kg (1.4 lb); steel, zinc-plated (suffix "S"); or ductile-iron (suffix "D") standard—consult factory for weight and dimensions; rated to 345 bar (5000 psi)

Valve block:

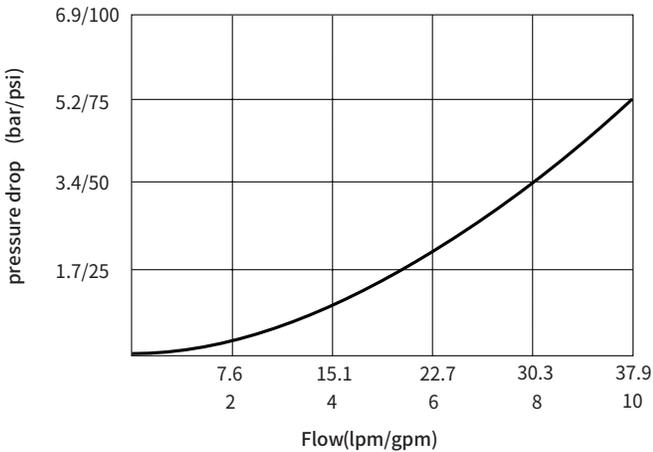
Weight: 0.36 kg (0.80 lb); anodised high-strength aluminium alloy 6061-T6, rated to 240 bar (3500 psi).

Technical Data

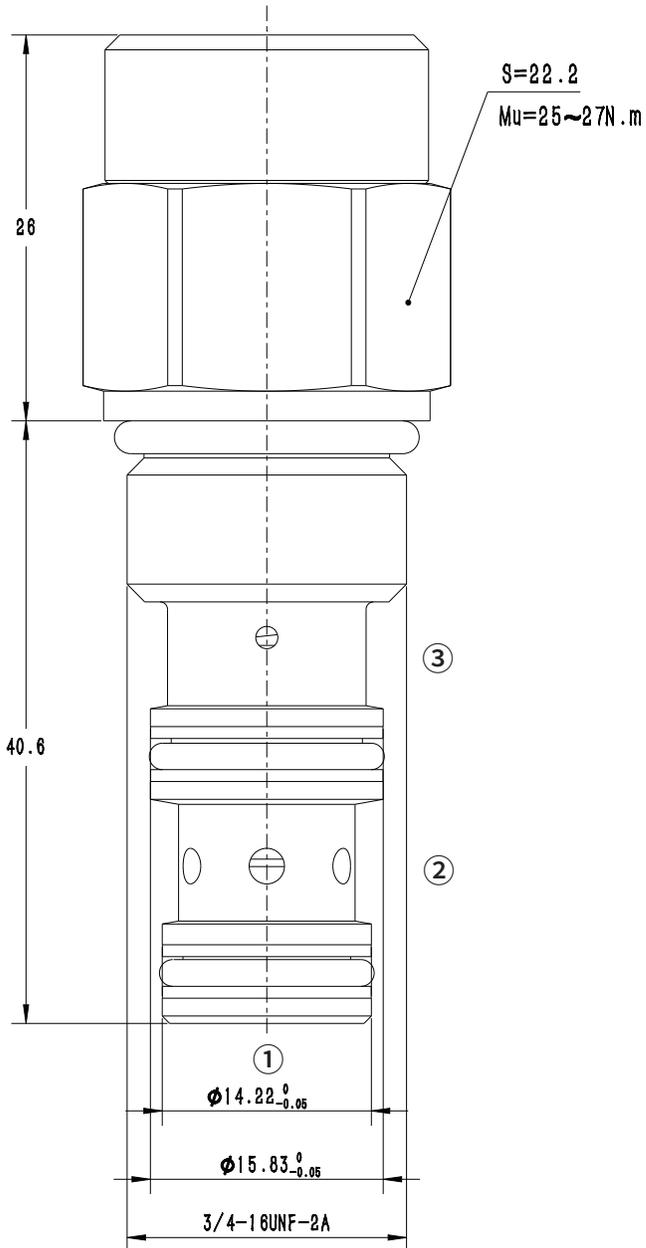
Rated Pressure	345 bar
Max. Flow	37.9L/min
Internal leakage	At 345bar (5000 psi) , Max. 115ml/min (7c.f/min)
Cavity detail	VC08-3 (see Technical Reference)
Working fluid	Mineral oil or lubricating synthetic oil
Viscosity range	7.4~420 cSt (50~2000 ssu)
Temperature range	-40 to 120 °C (Standard NBR seal)

Performance Curve (insert type only)

① to ② / ② to ① (Fully connected)
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





7.2

EP10-3-S35

Hydraulic control logic valve

Rated Pressure (bar)	350
Max. Flow(L/min)	75.8 (see performance curve)

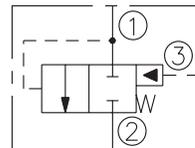
Features

- Versatile and widely applicable
- Low pressure loss
- Industry-standard cavity
- Compact size

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol

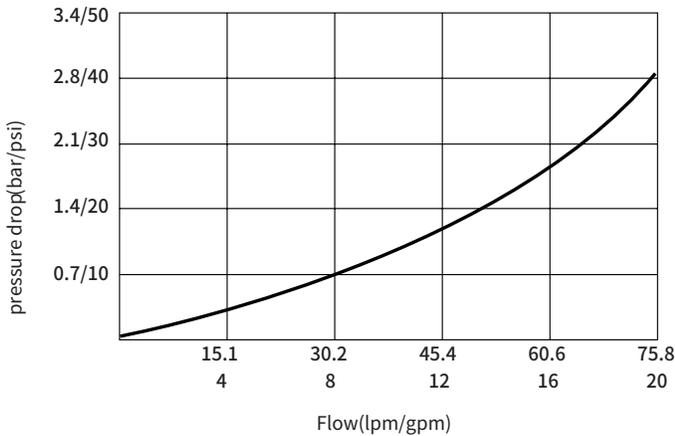


Technical Data

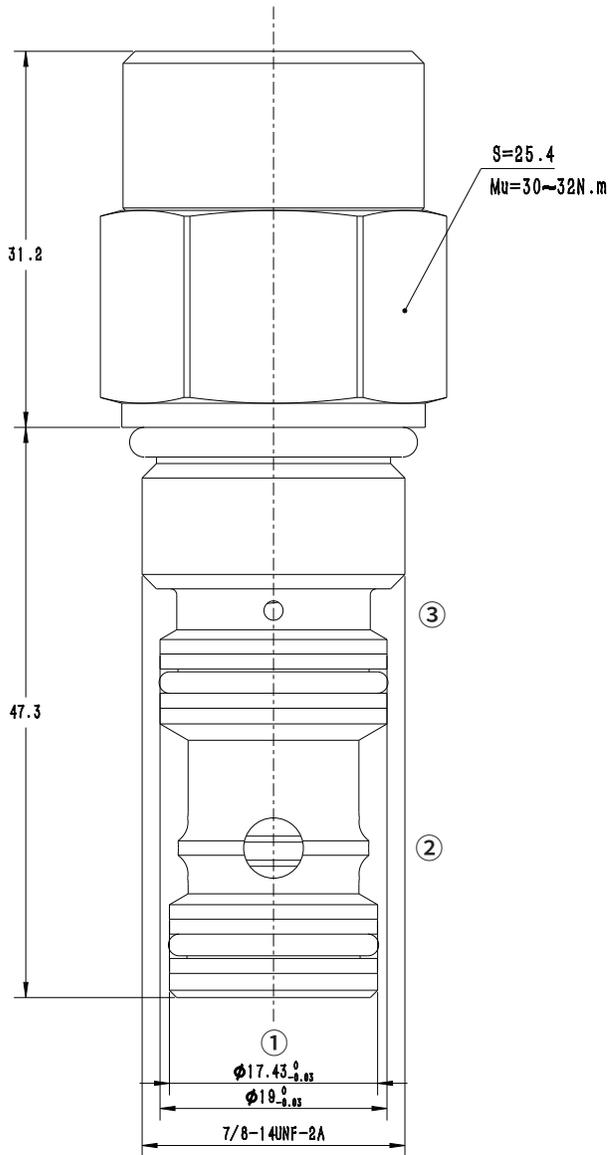
Rated Pressure	350 bar
Max. Flow	75.8L/min
Internal leakage	At 207bar (3000 psi) , Max. 164ml/min (10c.f/min)
Cavity detail	VC10-S3 (see Technical Reference)
Working fluid	Mineral oil or lubricating synthetic oil
Viscosity range	7.4~420 cSt (50~2000 ssu)
Temperature range	-40 to 120 °C (Standard NBR seal)

Performance Curve (insert type only)

① to ② / ② to ① (Fully connected)
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions





SOLINER

7.3

EP12-3-S35

Hydraulic control logic valve

Rated Pressure (bar) 350
 Max. Flow(L/min) 151.4 (see performance curve)

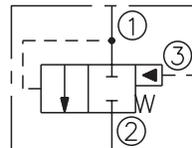
Features

- Versatile and widely applicable
- Low pressure loss
- Industry-standard cavity
- Emergency manual override available only with 80 psi spring

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, spool-type hydraulic logic element; when used with other directional, pressure or flow controls it can perform multiple functions.

Working Principle

Model EP10-3-S35 is a spring-loaded on/off valve: the spool shifts to allow full flow ①→② only when pressure at ① exceeds the sum of pressure at ③ plus the spring preload. Model EP10-3-S35 acts as a pilot-to-close directional valve: with no pressure at ③, flow ①→② occurs as soon as pressure at ① overcomes the spring preload.



Model Description

EP12-3-S35			
Model options			
None	(blank)		
Extended bonnet	T		
EMO	M		
Emergency manual override function is available for 80 psi springs only.			
Valve block oil port			
Order plug-in components only	0		
	SAE 12*	12T	
*SAE 6 Hydraulic control port			
			Spring specs
			10 0.7 bar (10 psi)
			80 5.5 bar (80 psi)
			100 7 bar (100 psi)
			‡ 160 11 bar (160 psi)
			‡ 240 16.5 bar (240 psi)
			‡ T option required
			Seal material
			N NBR (standard)
			V FKM
			P PU (for pressures above 240 bar [3 500 psi])

Materials

Cartridge:

Weight: 0.23 kg (0.50 lb); steel, working surfaces hardened; outer surface zinc-plated. seals: NBR O-rings and PU back-up rings (standard)

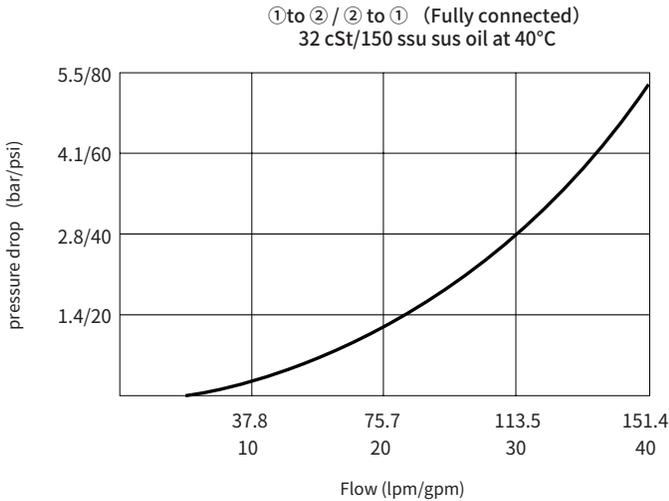
Standard valve block:

Weight: 1.13kg (2.50 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

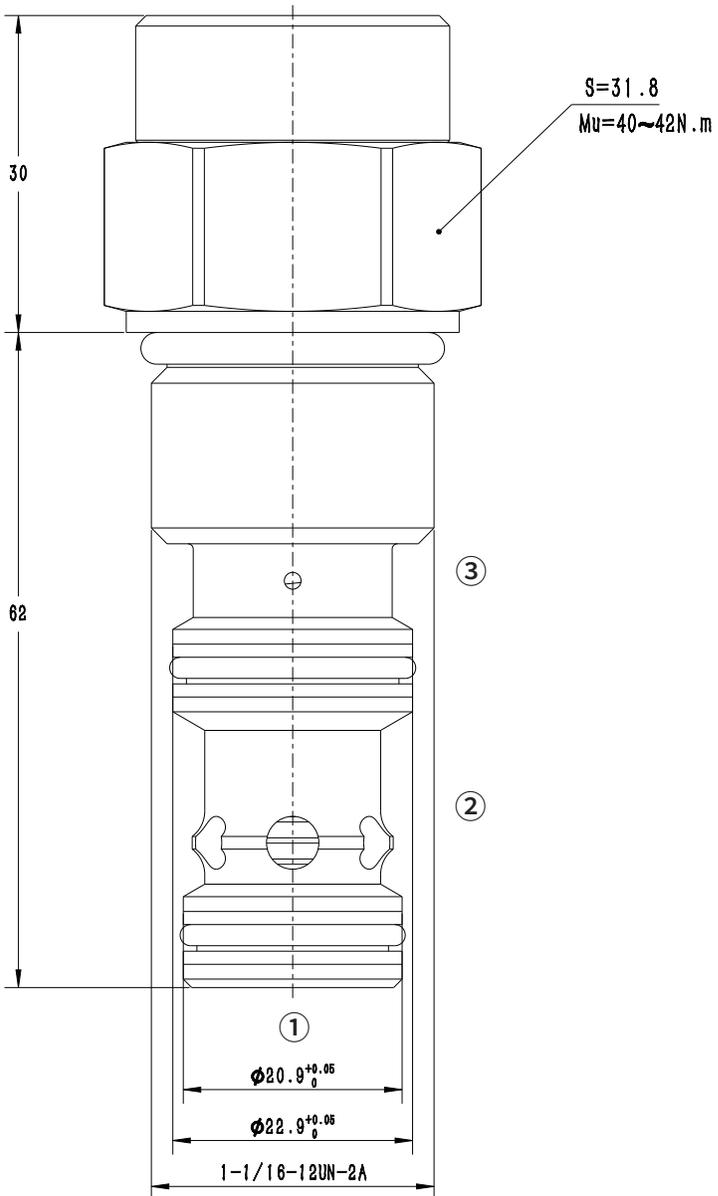
Technical Data

Rated Pressure	350 bar
Max. Flow	151.4L/min
Internal leakage	At 350bar (5000 psi) , Max. 131ml/min (8c.f/min)
Cavity detail	VC12-S3 (see Technical Reference)
Working fluid	Mineral oil or lubricating synthetic oil
Viscosity range	7.4~420 cSt (50~2000 ssu)
Temperature range	-40 to 120 °C (Standard NBR seal)

Performance Curve (insert type only)



Outline Dimensions





SOLINER

7.4

EP16-3-S35

Hydraulic control logic valve

Rated Pressure (bar) 350
 Max. Flow(L/min) 151.4 (see performance curve)

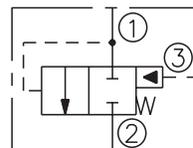
Features

- Versatile and widely applicable
- Low pressure loss
- Industry-standard cavity

Contents

Description	02
Working principle	02
Model Description	02
Materials	02
Technical Data	03
Performance Curve	03
Outline Dimensions	04

Function Symbol



Description

Screw-in cartridge, spool-type hydraulic logic element; when used with other directional, pressure or flow controls it can perform multiple functions.

Working Principle

Model EP16-3-S35 is a spring-loaded on/off valve: the spool shifts to allow full flow ①→② only when pressure at ① exceeds the sum of pressure at ③ plus the spring preload. Model EP16-3-S35 acts as a pilot-to-close directional valve: with no pressure at ③, flow ①→② occurs as soon as pressure at ① overcomes the spring preload.



Model Description

EP16-3-S35			
Model options			Spring specs
None	(blank)		10 0.7 bar (10 psi)
Extended bonnet	T		20 1.4 bar (20 psi)
EMO	M		40 2.8 bar (40 psi)
Emergency manual override function is available only with 90 psi, 110 psi, 160 psi and 240 psi return springs.			70 4.8 bar (70 psi)
			† 90 6.2 bar (90 psi)
			† 110 7.6 bar (110 psi)
			† 160 11 bar (160 p s i)
			† 240 16.5 bar (240 psi)
			† T option required
Valve block oil port			Seal material
Order plug-in components only	0		N NBR (standard)
*SAE 16 (with SAE 6 hydraulic control port)	16T		V FKM

Materials

Cartridge:

Weight: 0.27kg (0.60 lb); steel, working surfaces hardened; outer surface zinc-plated.seals: NBR O-rings and PU back-up rings (standard)

Standard valve block:

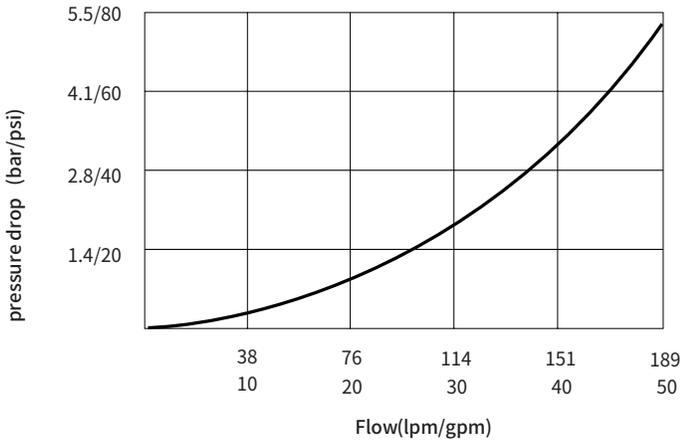
Weight: 1.50kg (3.30 lb); anodized high-strength aluminum alloy 6061-T6, rated to 240 bar (3,500 psi); ductile-iron and steel manifolds available; dimensions may vary.

Technical Data

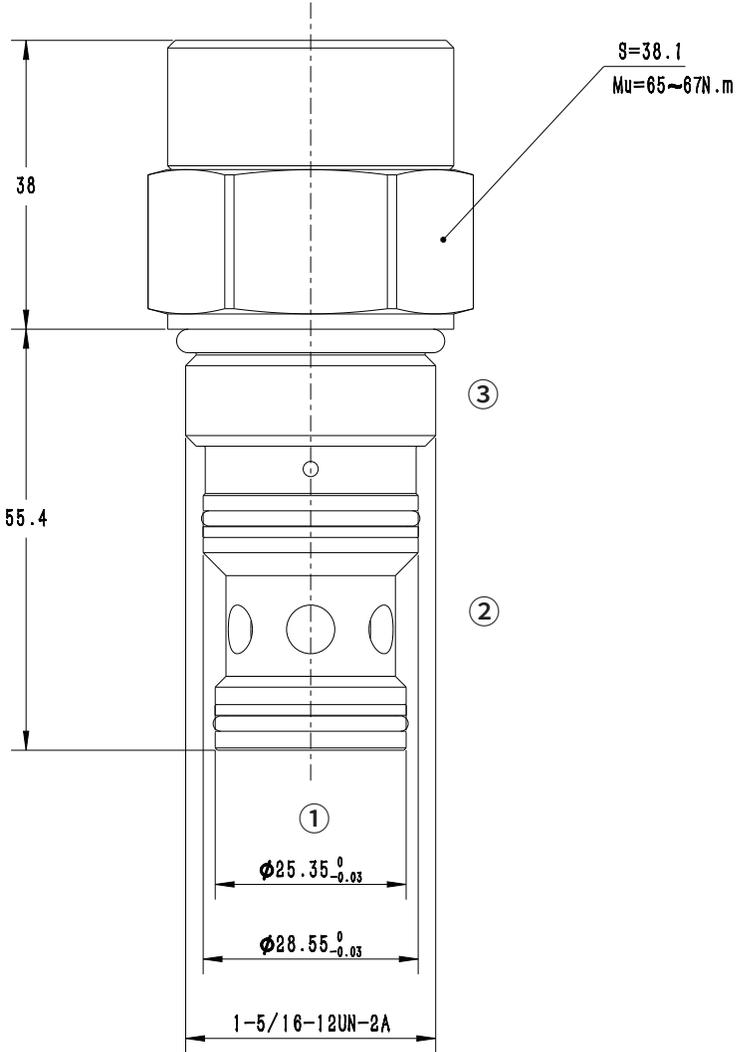
Rated Pressure	240 bar
Max. Flow	189L/min
Internal leakage	At 207bar (3000 psi) , Max. 164ml/min (10c.f/min)
Cavity detail	VC16-S3 (see Technical Reference)
Working fluid	Mineral oil or lubricating synthetic oil
Viscosity range	7.4~420 cSt (50~2000 ssu)
Temperature range	-40 to 120 °C (Standard NBR seal)

Performance Curve (insert type only)

① to ② / ② to ① (Fully connected)
 32 cSt/150 ssu sus oil at 40°C



Outline Dimensions



8. Valve manifold

8.1	BKD-A-06/1/SM Keyboard block	446-449
8.2	BKD-C-06/E/XG-7 Vise-valve manifold	450-453
8.3	BKD-C-06/F/XG-4 Vise-valve manifold	454-457
8.4	BPLD-A-06/2/ZL-1 Dual-section manifold	458-461
8.5	BKD-C-08/C/XG-2 Swing-arm valve manifold	462-465
8.6	BPLD-A-06/1/HW-2 Pilot valve manifold	466-469
8.7	BPLD-A-06/3/XG-2 Pilot valve manifold	470-473
8.8	BPLD-A-06/4/JH-2 Pressure-reducing & relief manifold	474-479
8.9	BPLD-A-06/4/SY Triple pressure reducing Manifold	480-483
8.10	BPLD-A-06/4/ZL-1 Triple-section valve manifold	484-487
8.11	BPLD-A-06/4/ZL-M Pilot valve manifold	488-491
8.12	BPLD-A-06/4/ZL Quad-section valve manifold	492-495
8.13	BPLD-A-06/8/ZL Seven-section valve manifold	496-499
8.14	BPLD-A-06/1/XG-5 Pilot oil supply valve manifold	500-503
8.15	BPLD-A-08/3/SY Solenoid Valve manifold	504-507
8.16	BPLD-A-10/5/XG Sweeper valve manifold	508-511
8.17	BPLD-C-06/1/BJ Single-section directional manifold	512-515
8.18	BPLD-C-06/1E/XG-3 Six-section valve manifold	516-519
8.19	BPLD-C-06/2B/XG-2 Six-section valve manifold	520-523
8.20	BPLD-C-06/4/LG-3 Triple-section valve manifold	524-527
8.21	BPLD-C-06/5/LG-1 Dual reducing & relief valve manifold	528-531
8.22	BPLD-C-06/5/LG-2 Dual reducing & relief valve manifold	532-535
8.23	BPLD-C-06/5/LG-4 Quad-section valve manifold	536-539

Contents

8.24	BPLD-C-06/5/SY Pilot valve manifold	540-543
8.25	BPLD-C-06/7/TZ Six-section valve manifold	544-549
8.26	BPLD-C-06/C/XG-6 Integrated valve manifold	550-553
8.27	BPLD-C-06/G/XG-8 Seven-section valve manifold	554-557
8.28	BPLD-C-10/3/BJ Single-section dual-relief manifold	558-561
8.29	CMV-50R-DN10-F-G3/8 Anti-burst valve	562-565
8.30	CMV-600 Flange-mounted anti-burst valve	566-570



SOLINER

8.1

BKD-A-06/1/SM

Keyboard block

Rated Pressure (bar)	210
Max. Flow(L/min)	11.4

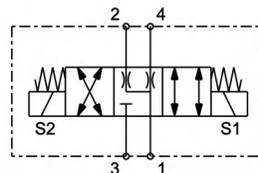
Features

- Solenoid directional valve shifts quickly and smoothly with excellent performance
- Simple construction for easy maintenance
- Good sealing with minimal leakage
- Low power consumption and environmentally friendly

Contents

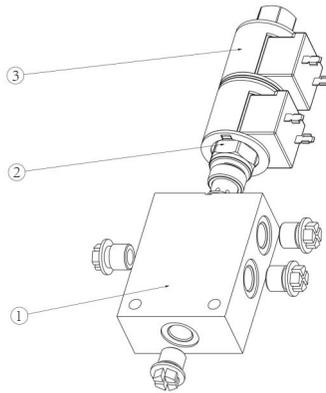
Description	02
Application	02
Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Function Symbol



Description

BKD-A-06/1/SM Supplies low-pressure pilot oil to the control unit for medium- and high-pressure hydraulic systems with hydraulic or electro-hydraulic control. The pilot valve assembly consists of the valve block (1), a 3-position, 4-way solenoid valve (2) and the coil assembly (3). Pressure oil enters at port 3, passes through the 3-position, 4-way solenoid valve (2), and is delivered to the control circuit via port 2 or 4. The 3-position, 4-way solenoid valve (2) and coil assembly (3) work together to shift the spool and direct the oil flow.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	0.9kg
Installation site	Any

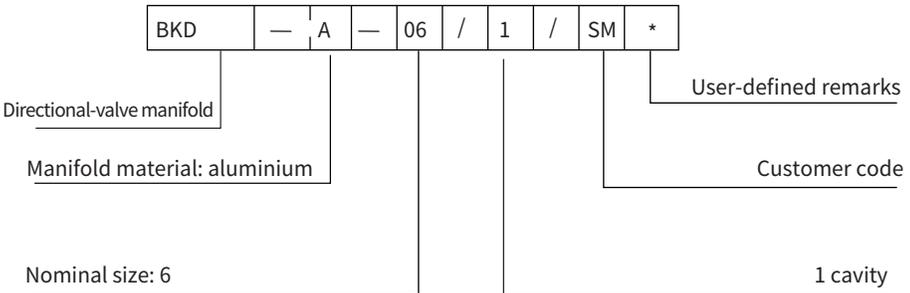
Hydraulic

Inlet pressure	Max. to210 bar
Max. Flow	11.4 L/min
Fluid medium	Mineral oil(HL、 HLP) Comply to DIN51524
Fluid temperature range	-20 to+90 °C
Recommended viscosity range	15to250mm ² /S
Oil contamination level	Maximum fluid contamination level ISO 4406 20/18/15

Electrical

Rated-voltage solenoid electromagnet	12VDC
Protection class (to DIN 40050)	IP65
Solenoid rated power	20W

Ordering parameter

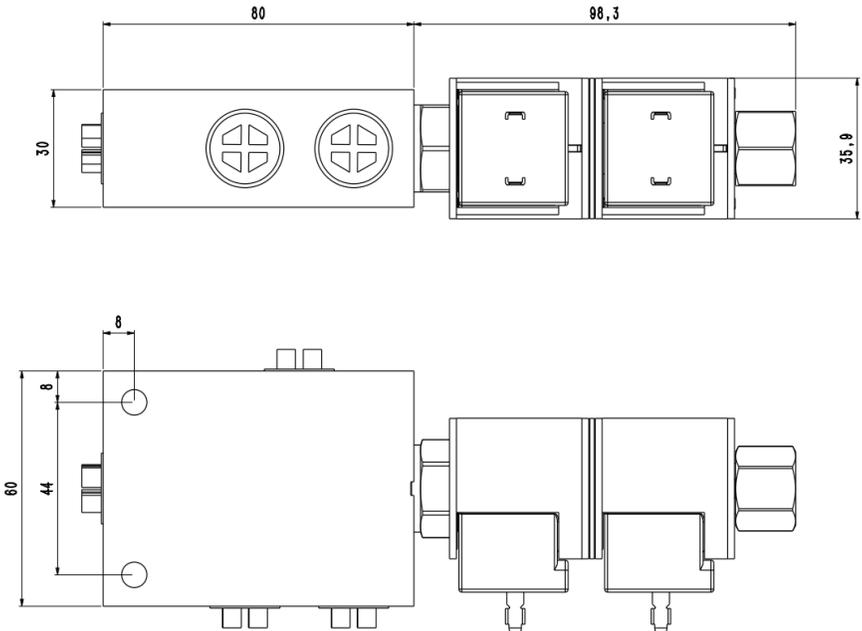


Outline Dimensions

·BKD-A-06/1/SM

(unit: mm)

· Port size: G1/4 with ED seal





SOLINER

8.2

BKD-C-06/E/XG-7

Vise-valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

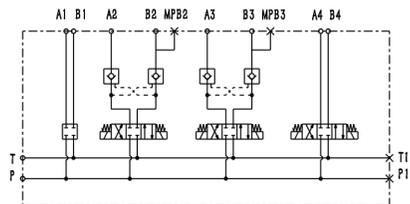
Features

- Integrated design, compact construction
- Solenoid valves respond quickly with flexible control logic
- Low power consumption
- Safe and reliable
- Easy maintenance, low failure rate

Contents

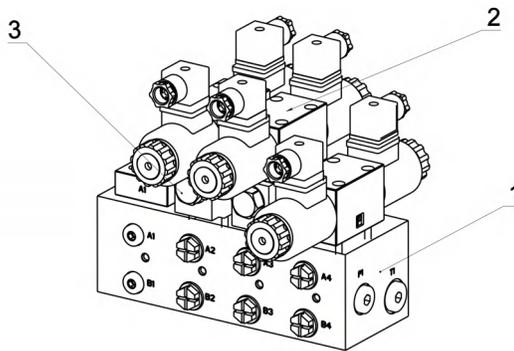
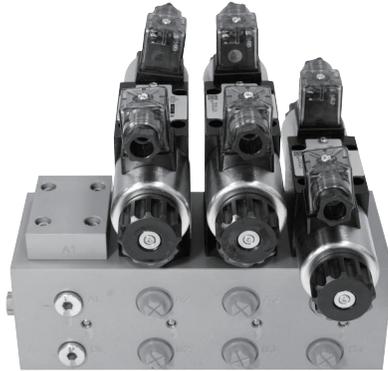
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Application	02
Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Function Symbol



Description

Model BKD-C-06/E/XG-7 vise-valve manifold supplies hydraulic fluid to systems requiring directional change. The manifold consists of valve block (1), 3-position 4-way solenoid valve (2), and sandwich-type pilot-operated check valves (3). Pressure oil enters at P port and feeds the system via A2, B2, A3, B3, A4, B4. The 3-position 4-way solenoid valve (2) performs directional switching, while the sandwich-type pilot-operated check valves (3) provide load holding.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	19.7kg
Installation site	Any

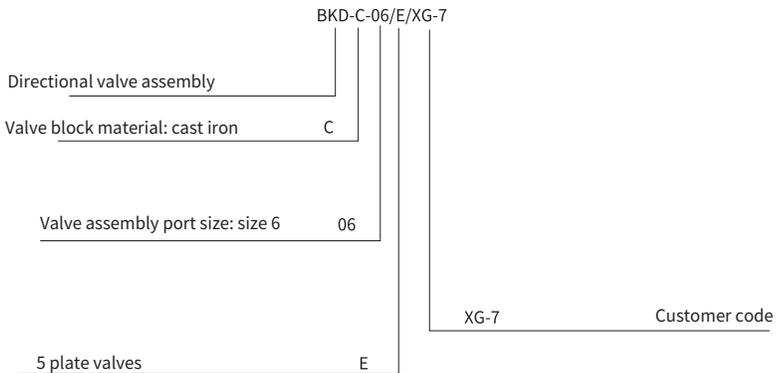
Hydraulic

Inlet pressure	Max. to315bar
Max. Flow	60L/min
Pilot-operated check valve cracking pressure	2bar
Pilot-operated check valve rated flow	60L/min
Fluid medium	Mineral oil(HL、HLP)to DIN51524
Fluid temperature range	-40to+90°C
Recommended viscosity range	7.4~420cSt
Oil contamination level	ISO440619/17/14 level

Electrical

Rated voltage	28V ±10%DC
Protection class (to DIN 40050)	IP65

Ordering parameter



Outline Dimensions

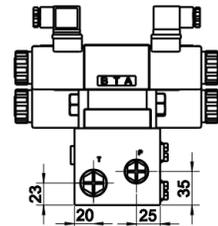
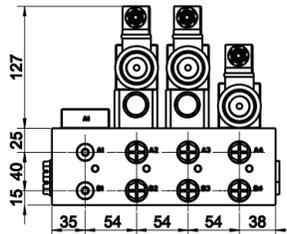
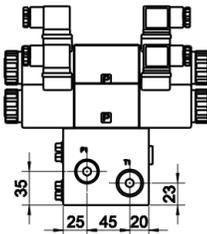
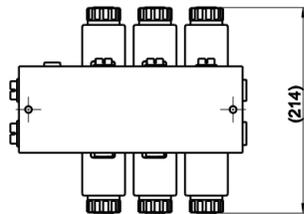
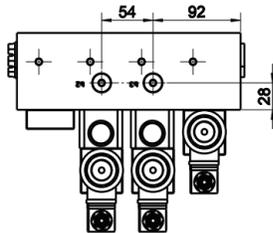
Port size: P、P1port: M18×1.5 (ED seal)

T、T1port: M22×1.5 (ED seal)

A1、B1port: M12×1.5 (ED seal)

b2、b3port: G1/4 (ED seal)

Remaining oil port: M16×1.5 (ED seal)





SOLINER

8.3

BKD-C-06/F/XG-4

Vise-valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

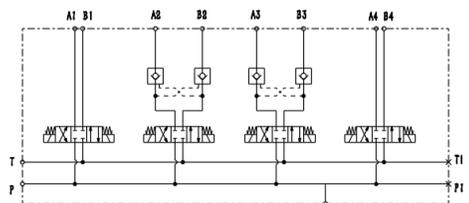
Features

- Integrated design, compact construction
- Solenoid valves respond quickly with
- flexible control logic
- Low power consumption
- Safe and reliable
- Easy maintenance, low failure rate

Contents

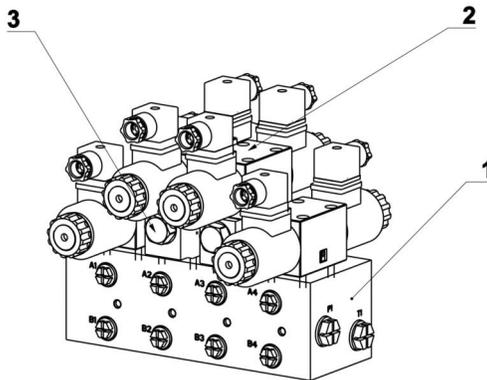
Description	02
Application	02
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Outline Dimensions	04

Function Symbol



Description

Model BKD-C-06/F/XG-4 vise-valve manifold supplies hydraulic fluid to systems requiring directional control. The manifold consists of valve block (1), 3-position 4-way solenoid valve (2) and sandwich-type pilot-operated check valves (3). Pressure oil enters at port P and is distributed to the system via A2, B2, A3, B3, A4, B4; the 3-position 4-way solenoid valve (2) performs directional switching, while the sandwich-type pilot-operated check valves (3) provide load holding.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	21.8kg
Installation site	Any

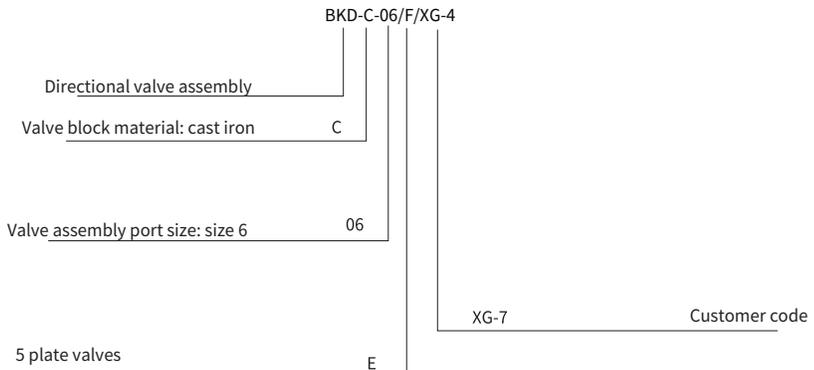
Hydraulic

Inlet pressure	Max. to315bar
Max. Flow	60L/min
Pilot-operated check valve cracking pressure	2bar
Pilot-operated check valveRated flow	60L/min
Fluid medium	Mineral oil(HL、HLP)to DIN51524
Fluid temperature range	-40to+90°C
Recommended viscosity range	7.4~420cSt
Oil contamination level	ISO4406 19/17/14 level

Electrical

Rated voltage solenoid	28V ±10%DC
Protection level (according to DIN 40050)	IP65

Ordering parameter

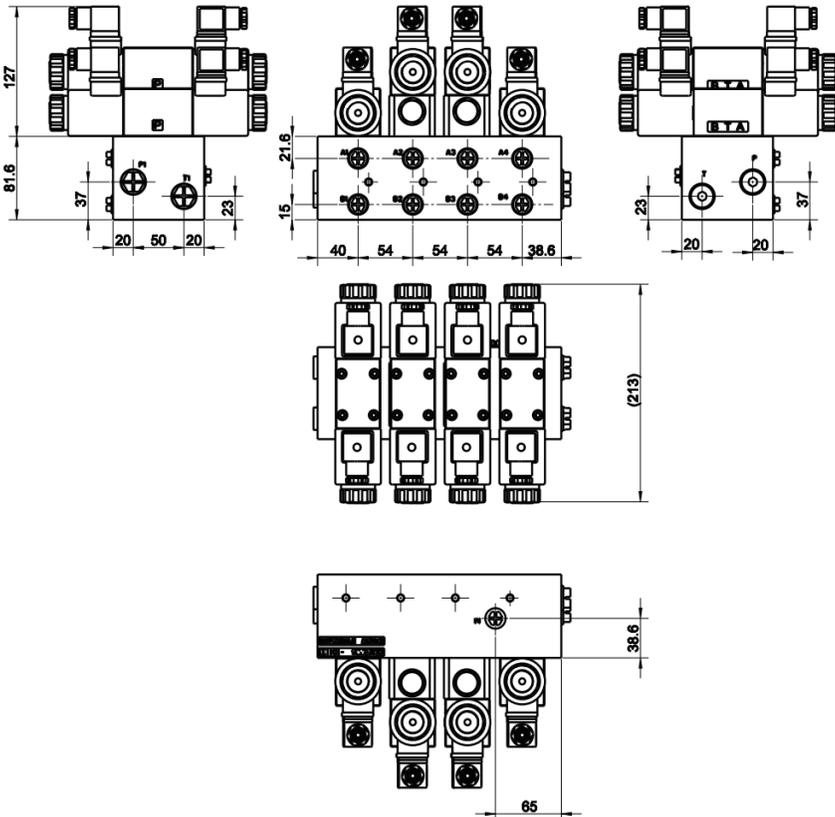


Outline Dimensions

P、Tport: M18×1.5 (ED seal)

Mport: G1/4 (ED seal)

Remaining oil port: M14×1.5 (ED seal)





SOLINER

8.4

BPLD-A-06/2/ZL-1

Dual-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	20

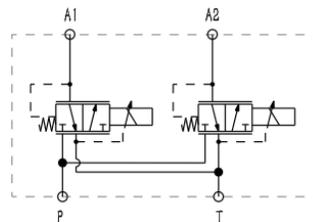
Features

- Compact design
- Fast proportional-valve response
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

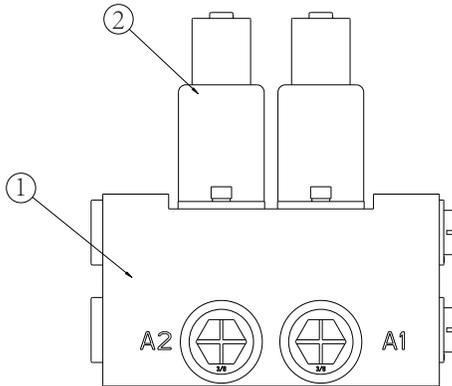
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Function Symbol



Description

Model BPLD-C-06/2/ZL-1 pilot-pressure supply manifold delivers control oil to control units in hydraulic or electro-hydraulic systems. The manifold consists of valve block (1) and an electro-proportional pressure-reducing valve (2). Pressure oil enters at P, passes through the electro-proportional reducing valve (2), and is delivered to the control circuit via ports A1 or A2; the reducing valve (2) modulates pressure at A1 and B1 in proportion to the applied control current.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	1.34kg
Installation site	Any

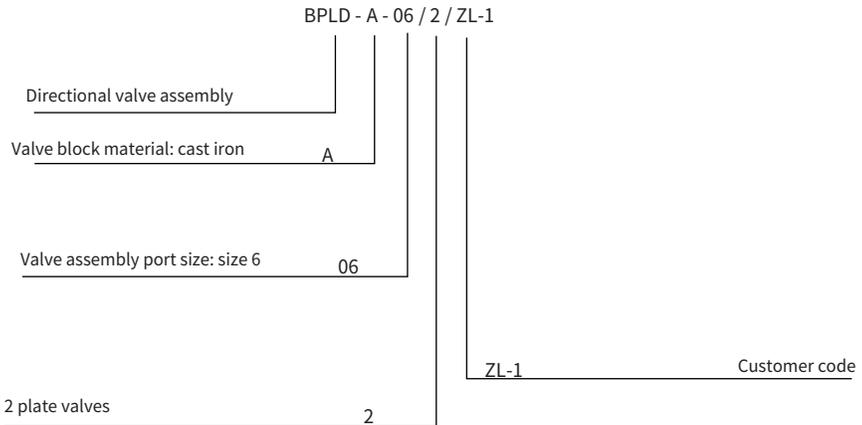
Hydraulic

Max. Inlet pressure	Max. to50bar
Working Flow	20L/min
Fluid medium	Mineral oil(HL、 HLP)to DIN51524
Fluid temperature range	-40to+80°C
Recommended viscosity range	7.4-420cSt
Oil contamination level	Max. contamination level: ISO 4406 19/17/14

Electrical

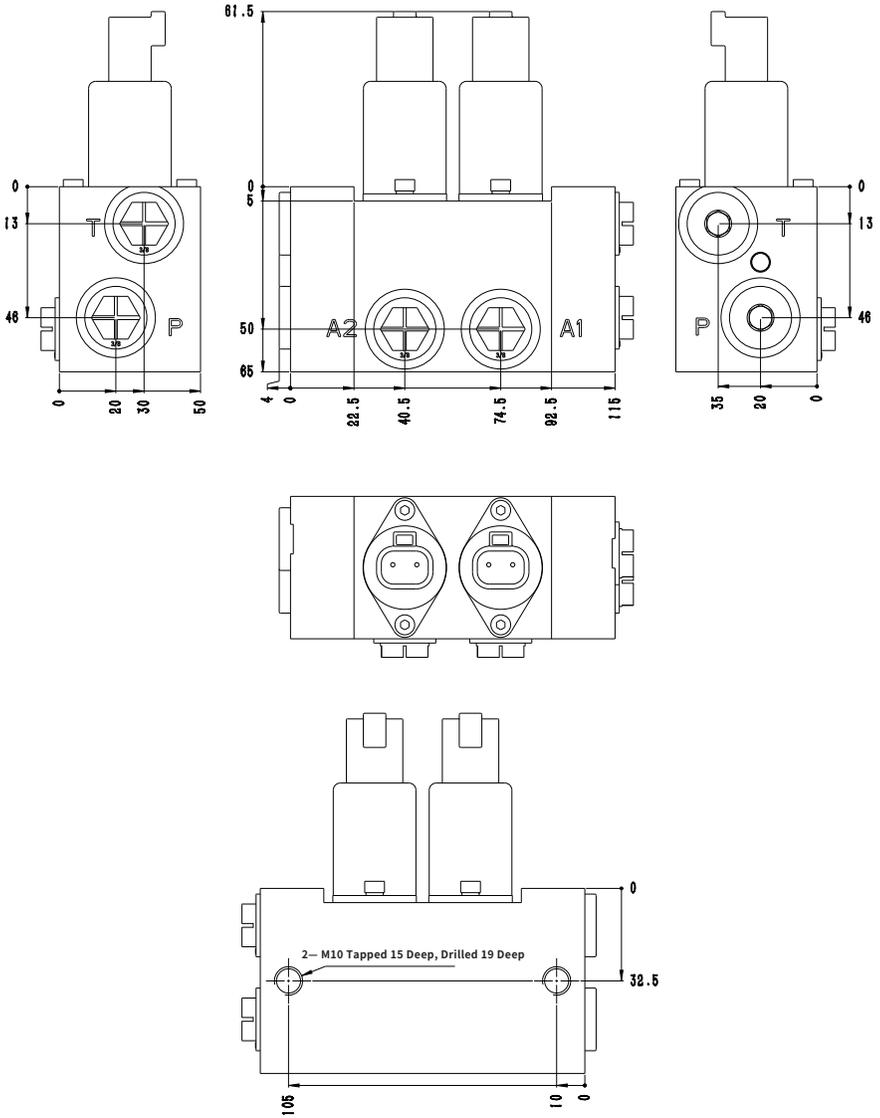
Rated Voltage Electromagnet	24V DC
Degree of Protection (as per DIN 40050)	IP67
Solenoid rated power	16W
Solenoid operating current	300-1300mA
Recommended PWM for solenoid	130-200Hz
Solenoid Valve Connection	Deutsch DT04-2P

Ordering parameter



Outline Dimensions

- BPLD-A-06/2/ZL-1
- All port sizes=G3/8





SOLINER

8.5

BKD-C-08/C/XG-2

Swing-arm valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

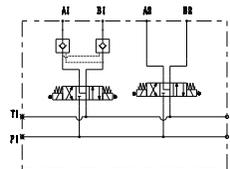
Features

- Can be directly supplied from the high-pressure circuit
- Low power consumption

Contents

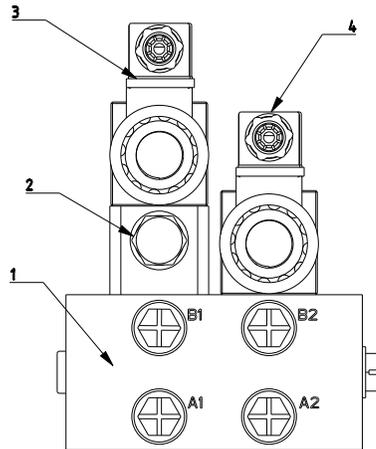
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Function Symbol



Description

The manifold supplies low-pressure pilot oil to the control unit for hydraulic or electro-hydraulic systems. It consists of valve block (1), pilot-operated check valve (2) and solenoid directional valves (3, 4). Pressure oil enters at P, passes through pilot-operated check valve (2) and solenoid directional valves (3, 4), then delivers pilot pressure to the circuit via ports A1/B1 and A2/B2. Pilot-operated check valve (2) on the manifold provides A1/B1 interlock. Solenoid directional valve (3) switches flow between A1 and B1; solenoid directional valve (4) switches flow between A2 and B2.



Application



Excavator



Backhoe loader



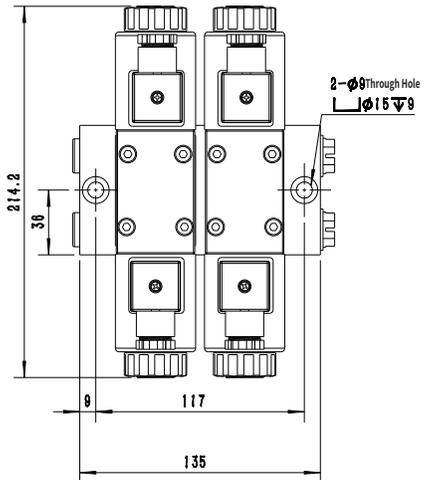
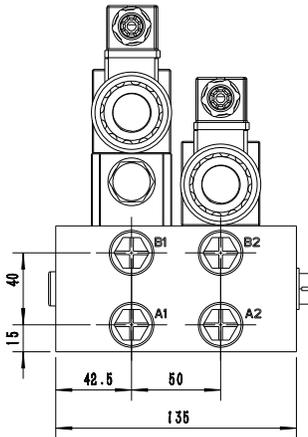
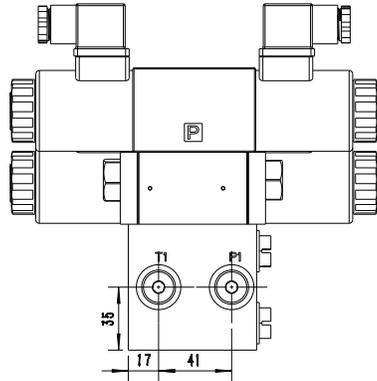
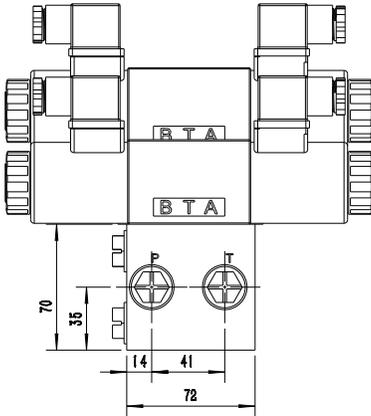
Wheel loader



Crane

Outline Dimensions

Remaining oil port: M14x1.5





SOLINER

8.6

BPLD-A-06/1/HW-2

Pilot valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

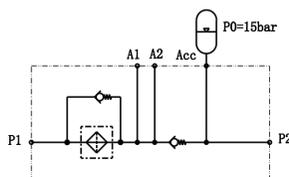
Features

- Can be directly supplied from the high-pressure circuit
- Excavator pilot manifold provides pressure protection for the pilot circuit
- Compact unit supplying low-pressure pilot oil
- Incorporates filtration to deliver cleaner oil to the pilot stage
- High environmental adaptability, suitable for harsh operating conditions

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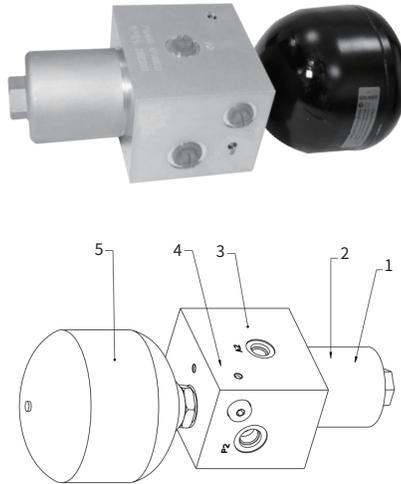
Function Symbol



Description

Model BPLD-A-06/1/HW-2 excavator pilot manifold supplies low-pressure control oil to the control unit for medium-/high-pressure hydraulic systems with hydraulic or electro-hydraulic control. The manifold consists of filter (1), bypass valve (2), valve block (3), embedded check valve (4) and accumulator (5). Oil enters at P1, passes through filter (1) and is delivered at low control pressure via ports A1 and A2; accumulator (5) acts as a standby pressure source, while embedded check valve (4) prevents accumulator discharge when A1/A2 pressure drops, maintaining standby pressure for downstream valves.

Note: used on machines without a separate pilot pump; if the accumulator is empty, one of the working circuits must supply approx. 15 bar to the pilot circuit at start-up.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

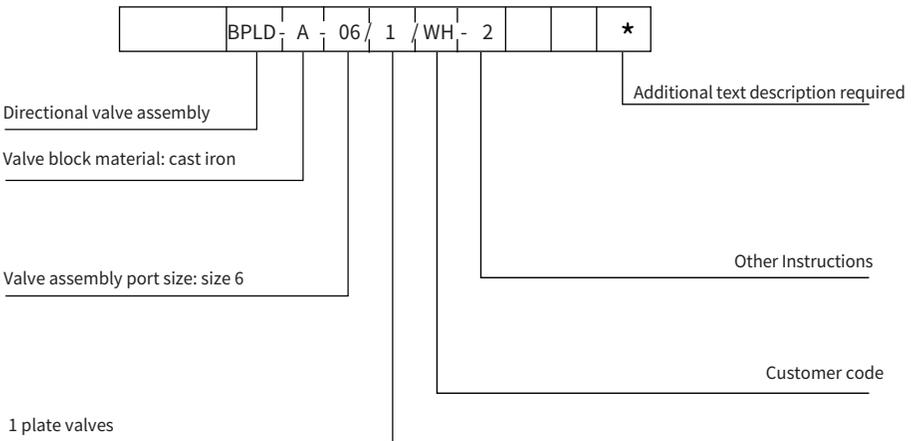
General-purpose

Weight	4.7kg
Port size	P1、 P2Port size:G3/8 O-Ring seal
	A1、 A2Port size:G1/4 O-Ring seal
	ACC G1/2 Ring seal
Installation site	Pilot level /Any

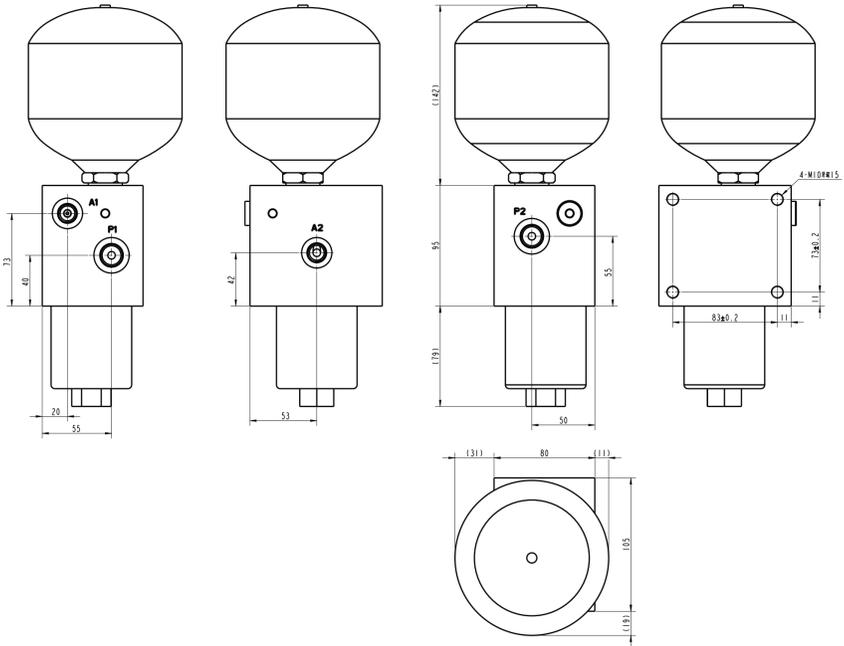
Hydraulic

Inlet pressure	Max. to40bar
Max. Flow	20L/min
Accumulator Precharge Pressure	15bar
Filtration rating	10 μ
Bypass valve cracking pressure	6±0.5bar
Fluid medium	Mineral oil(HL、 HLP)to DIN51524
Fluid temperature range	-20to+80°C
Recommended viscosity range	20~400mm ² /S
Oil contamination level	Maximum fluid contamination level ISO 4406 20/18/15

Ordering parameter



Outline Dimensions





SOLINER

8.7

BPLD-A-06/3/XG-2

Pilot valve manifold

Accumulator (L)	0.5
Rated Pressure (bar)	40
Max. Flow(L/min)	30

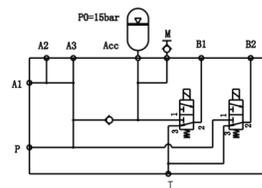
Features

- Compact design
- Fast proportional-valve response
- Compact unit supplying low-pressure pilot oil
- Low power consumption

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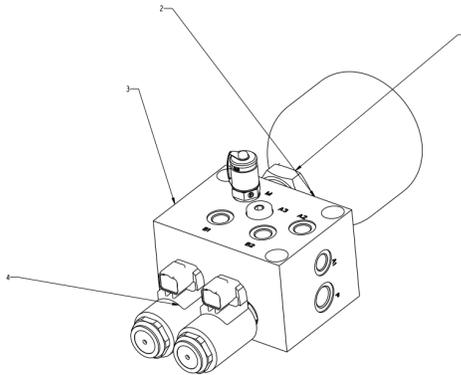
Function Symbol



Description

The BPLD-A-06/3/XG-2 pilot valve assembly provides low-pressure control oil to the control unit and is used in medium- and high-pressure hydraulic systems that are hydraulically or electro-hydraulically controlled. The pilot assembly consists mainly of an accumulator (1), a check valve (2), a valve manifold (3), and two 3/2 directional control valves (4). Pressure oil enters at port P, recharges the accumulator and simultaneously supplies the system pressure source; when the pressure at port P drops suddenly, the two directional valves shift and the accumulator takes over, acting as a temporary pressure source.

Note: BPLD-A-06/3/XG-2 used on machines without a separate pilot pump; if the accumulator is empty or the pilot valve manifold without accumulator, one of the working circuits must supply approx. 15 bar to the pilot circuit at start-up.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	6.5kg
Port size	P, T Port size:G3/8(DIN3852E)
	Other Port size: G1/4(DIN3852E)
Installation site	Any

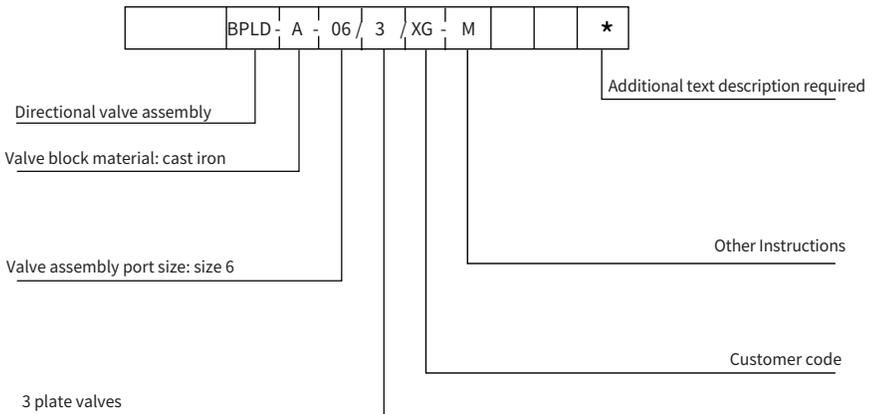
Hydraulic

inlet pressure	Max. to40bar
Accumulator Precharge Pressure	15Bar
Max. Flow	30 L/min
Fluid medium	Mineral oil(HL, HLP) to DIN51524
Fluid temperature range	-20to+90°C
Recommended viscosity range	10to420mm ² /S
Oil contamination level	Max. contamination level NAS 1638 class 9 / ISO 4406 20/18/15

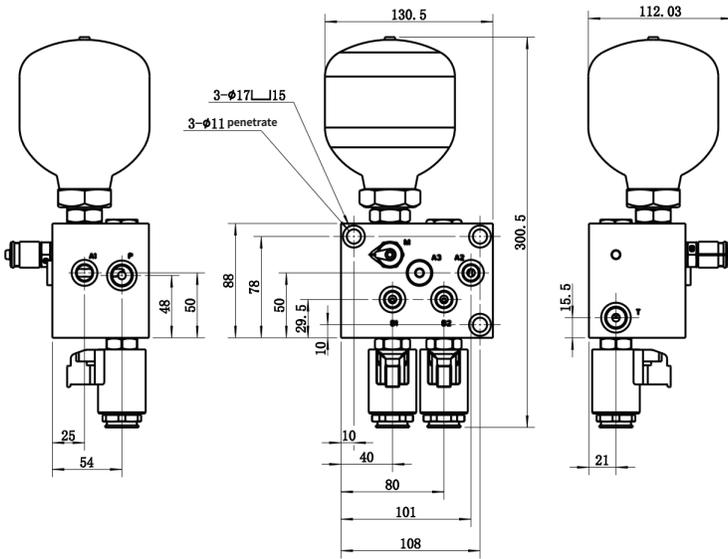
Electrical

Electromagnet	DC27V±15%
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W
Coil built-in electrical connector	DT04-2P

Ordering parameter



Outline Dimensions





SOLINER

8.8

BPLD-A-06/4/JH-2

Pressure-reducing & relief manifold

Accumulator (L)	0.32
Rated Pressure (bar)	60
Max. Flow(L/min)	20

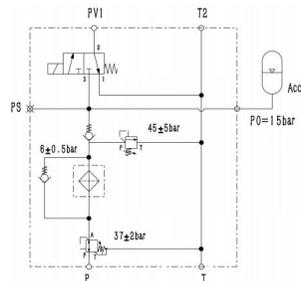
Features

- Can be directly supplied from the high-pressure circuit
- Cartridge relief valve safeguards the pilot circuit
- Compact unit supplying low-pressure pilot oil
- Delivers high-cleanliness oil to the system
- System safe and reliable, fast responsibility
- Low power consumption

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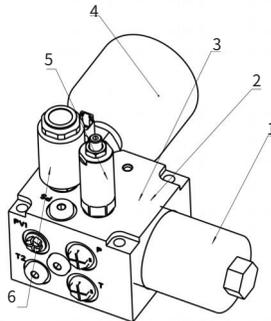
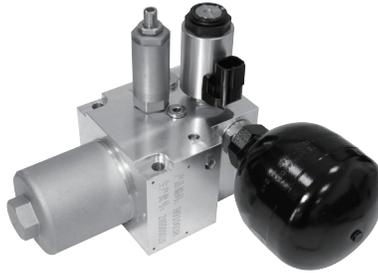
Function Symbol



Description

Model BPLD-A-06/4/JH-2 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for medium-/high-pressure hydraulic or electro-hydraulic systems. It comprises filter (1), embedded check valve (2), valve block (3), accumulator (4) and reducing/relief valve (5). Oil enters at P, passes through the reducing/relief valve (5) and check valve (2), and is delivered at reduced pressure via port PV1; accumulator (4) acts as a standby source, while reducing/relief valve (5) limits circuit pressure to a safe level even if reducing function fails. Solenoid directional valve (6) controls on/off of PV1 for pilot-circuit drain and safety protection.

Note: used on machines without a separate pilot pump and requiring high oil cleanliness; if accumulator is empty or not fitted, one of the working circuits must supply approx. 16 bar to the pilot circuit at start-up.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	5.6kg
Port size	Port size P、 T:G3/8 (O-Ring seal)
	All port size:G1/4(O-Ring seal)
Installation site	Any

Hydraulic

inlet pressure	60 bar
Bypass valve cracking pressure	45±5Bar
Pressure-reducing valve outlet pressure	37 ± 2 Bar (@ 10 L/min), adjustable
Accumulator Precharge Pressure	15Bar
Max. Flow	20 L/min
Filtration rating	10μ
Bypass valve cracking pressure	6±0.5Bar
Fluid medium	Mineral oil(HL、 HLP) to DIN51524
Fluid temperature range	-20to+90°C
Recommended viscosity range	10to420mm ² /S
Oil contamination level	Max. contamination level NAS 1638 class 9 / ISO 4406 20/18/15

Electrical

Electromagnet	DC28V±4V
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W
Coil built-in electrical connector	DP04-2P

Ordering parameter

	BPLD	-	A	-	06	/	4	/	JH	-	2				*
--	------	---	---	---	----	---	---	---	----	---	---	--	--	--	---

Directional valve assembly

Valve block material: cast iron

Valve assembly port size: size 6

4 plate valves

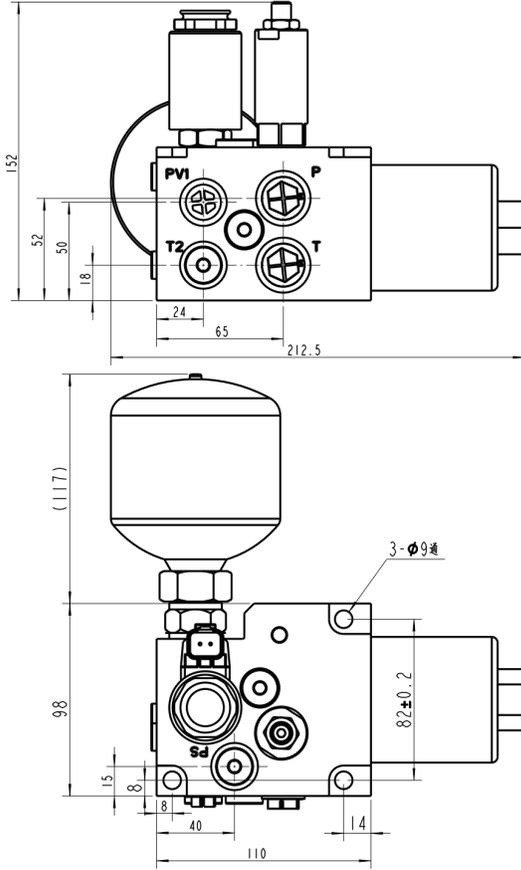
Additional text description required

Other Instructions

Customer code

Outline Dimensions

(unit: mm)







SOLINER

8.9

BPLD-A-06/4/SY

Triple pressure reducing Manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	14

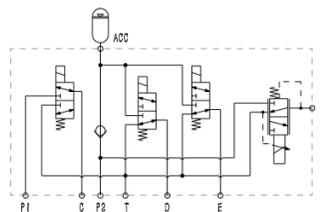
Features

- Compact design
- Fast proportional-valve response
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

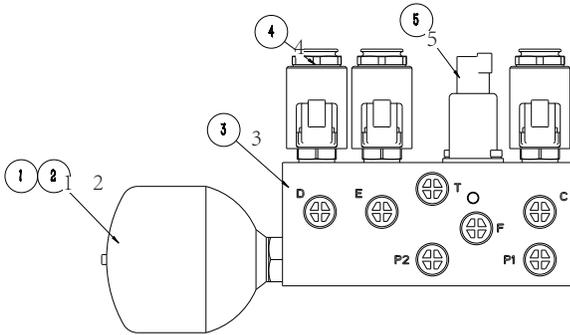
Description	02
Application	02
Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Function Symbol



Description

Model BPLD-C-06/4/ZL triple reducing manifold supplies control oil to the control unit for hydraulic or electro-hydraulic systems. It comprises accumulator (1), embedded check valve (2), valve block (3), solenoid valve (4) and electro-proportional pressure-reducing valve (5). Oil enters at P1/P2, passes through solenoid valve (4) and check valve (2), and is delivered via ports C, D, E and F; accumulator (1) connected at ACC acts as standby source. Solenoid valve (4) controls on/off of ports C, D, E, while proportional reducer (5) modulates pressure at port F in proportion to control current.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	3.84kg
Installation site	Any

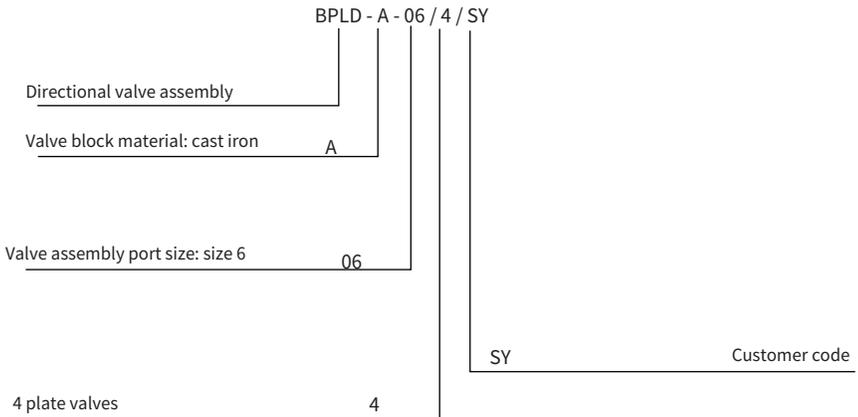
Hydraulic

Working Pressure	40bar
Working Flow	15L/min
Accumulator Volume	0.32L
Accumulator Precharge Pressure	15bar
Fluid medium	Mineral oil(HL、 HLP) to DIN51524
Fluid temperature range	-40to+80°C
Recommended viscosity range	7.4-420cSt
Oil contamination level	Max. contamination level: ISO 4406 19/17/14

Electrical

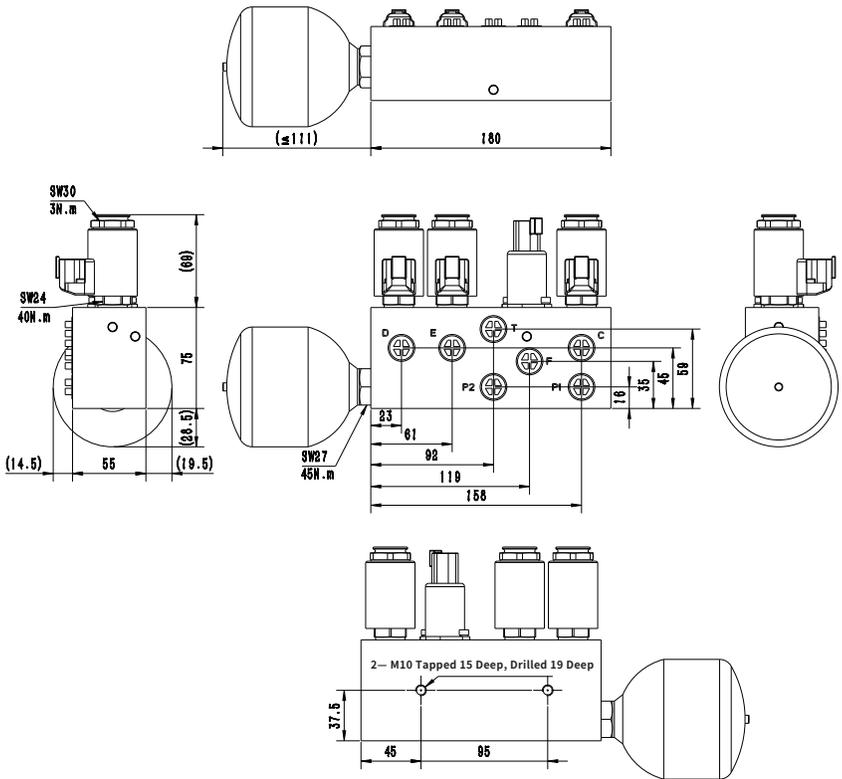
Rated Voltage Electromagnet	24V DC
Protection class (to DIN 40050)	IP67
Solenoid rated power	16W
Solenoid operating current	300-1300mA
Solenoid-valve,Proportional valve connection plug	130-200Hz Deutsch DT04-2P

Ordering parameter



Outline Dimensions

- BPLD-A-06/4/SY
- Port size: P1、P2、C、D、F、E、T=G1/4; ACC=G3/8





SOLINER

8.10

BPLD-A-06/4/ZL-1

Triple-section valve manifold

Rated Pressure (bar)	100
Max. Flow(L/min)	25

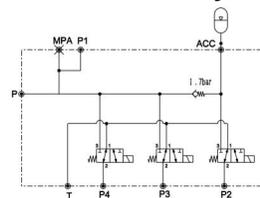
Features

- Compact design
- The solenoid valve offers a fast response time
- Compact unit supplying low-pressure pilot oil
- Low power consumption
- Accumulator for pressure stabilization and system damping
- The cartridge check valve provides pressure protection for the pilot control
- Lightweight material

Contents

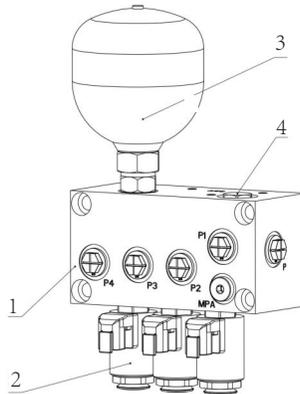
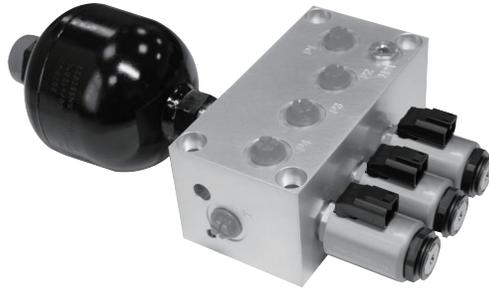
Description	02
Application	02
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Ordering parameter	03
Outline Dimensions	04

Function Symbol



Description

BPLD pilot-pressure supply manifold delivers low-pressure control oil to the control unit for medium- and high-pressure hydraulic or electro-hydraulic systems. The manifold consists of valve block (1), solenoid valve (2), accumulator (3) and check valve (4). Pressure oil enters at P or P1. Accumulator (3) on the manifold provides a standby pressure source for connected valves. Solenoid directional valve (2) controls on/off of ports P2, P3 and P4.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	4.48kg
Installation site	Any

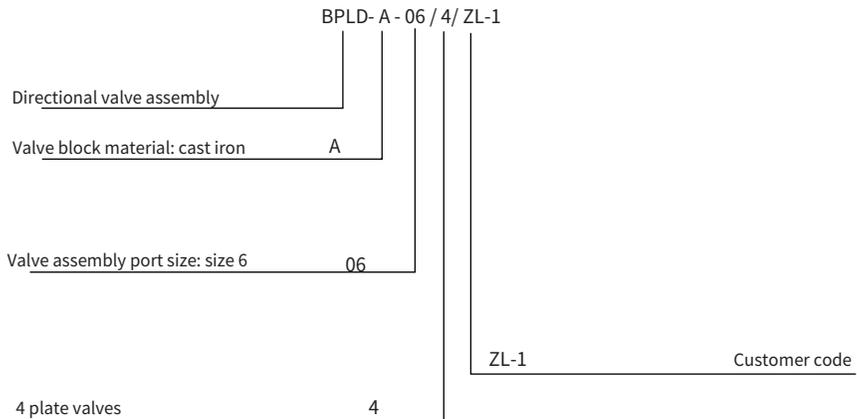
Hydraulic

Inlet pressure	Max. to100bar
Max. Flow	25L/min
Pilot-operated check valve cracking pressure	1.7bar
Accumulator	0.5L, 210 bar max. wp, 15 bar precharge, G1/2 int
Fluid medium	Mineral oil (HL、HLP) to DIN51524
Fluid temperature range	-20to+80°C
Recommended viscosity range	20to420mm ² /S
Oil contamination level	max. contamination level NAS 1638 ISO 18/16/13

Electrical

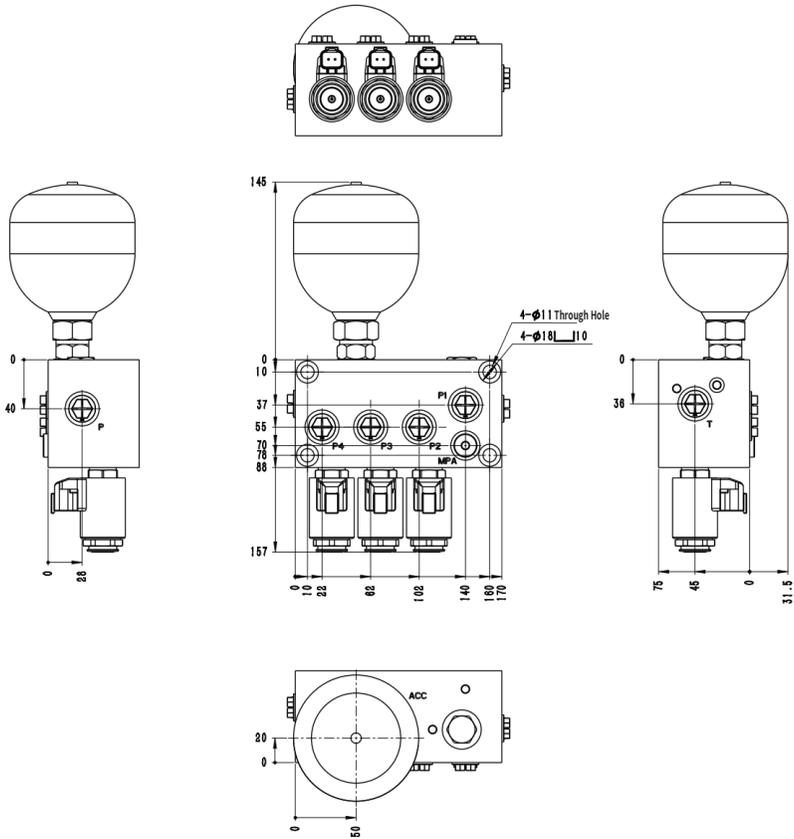
Rated Voltage	27V±15%
Protection class (to DIN 40050)	IP67
Solenoid Connector	DT04-2P

Ordering parameter



Outline Dimensions

- BPLD-A-06/4/ZL-1
- ACC: G1/2 (ED seal); MPA: G1/4 (ED seal); All other oil ports: G3/8 (O-ring seal)





SOLINER

8.11

BPLD-A-06/4/ZL-M

Pilot valve manifold

Accumulator(L)	0.5
Rated Pressure (bar)	40
Max. Flow(L/min)	25

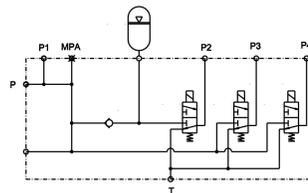
Features

- Can be directly supplied from the high-pressure circuit
- Compact unit supplying low-pressure pilot oil
- Multi-circuit integration available
- System safe and reliable, fast responsibility
- Low power consumption

Contents

Description	02
Application	02
Technical Data	03
Ordering parameter	04
Outline Dimensions	05

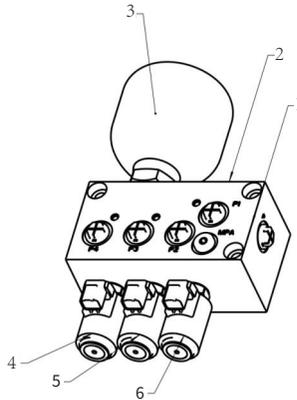
Function Symbol



Description

Model BPLD-A-06/4/ZL-M supplies low-pressure pilot oil to the control unit for medium- and high-pressure hydraulic or electro-hydraulic systems. The manifold comprises valve block (1), check valve (2), accumulator (3) and three 2-position, 3-way solenoid valves (4, 5, 6). Pressure oil enters at P/P1 and is delivered to the control circuit via ports P2, P3, P4, each independently controlled by solenoid valves (4, 5, 6); accumulator (3) provides a standby pressure source.

Note: used on multi-circuit construction machinery without a separate pilot pump; if the accumulator is empty or not fitted, one of the working circuits must supply approximately 15 bar to the pilot circuit at start-up.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	6.2 kg
Port size	MPA:G3/8 (JIS B2351)
	ACC:G1/4 (JIS B2351)
	Al port size:G3/8(JISB2351)
Installation site	Any

Hydraulic

Inlet pressure	Max. to 100bar
Accumulator Precharge Pressure	15Bar
Max. Flow	25 L/min
Fluid medium	Mineral oil(HL、HLP):DIN51524
Fluid temperature range	-20to+90°C
Recommended viscosity range	20to400mm ² /S
Oil contamination level	Max. contamination level NAS 1638 class 9 / ISO 4406 20/18/15

Electrical

Rated-voltage solenoid electromagnet	DC27V±15%
Protection class (to DIN 40050)	IP67
Solenoid rated power	20w
Coil built-in electrical connector	DT04-2P
Built-in bilateral diode	Diode breakdown voltage≥DC400V

Ordering parameter

BPLD
A
06
/
4
/
ZL
M

*

Directional valve assembly

Valve block material: cast iron

Valve assembly port size: size 6

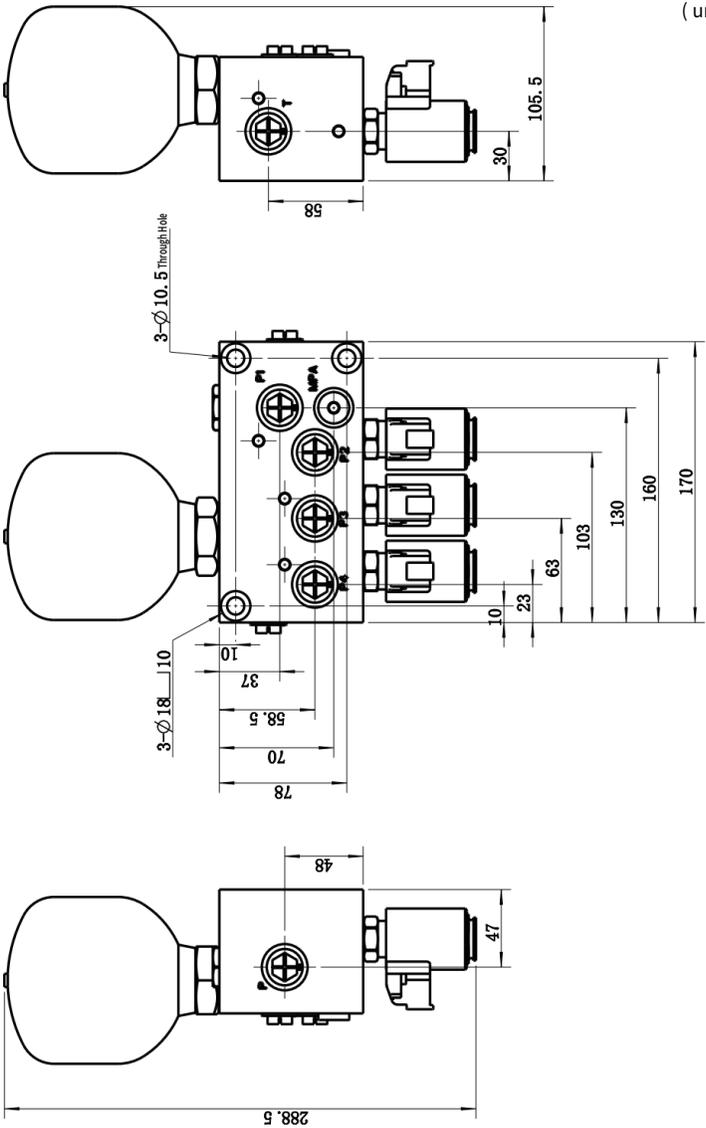
4 plate valves

Additional text description required

Other Instructions

Customer code

Outline Dimensions





SOLINER

8.12

BPLD-A-06/4/ZL

Quad-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	30

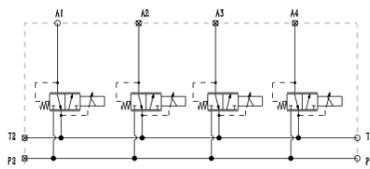
Features

- Compact design
- Fast proportional-valve response
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

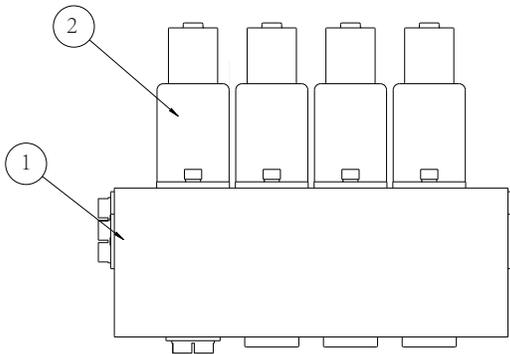
Description	02
Application	02
Technical Data	03
Ordering parameter	04
Outline Dimensions	05

Function Symbol



Description

Model BPLD-C-06/4/ZL pilot-pressure supply manifold delivers control oil to the control unit for hydraulic or electro-hydraulic systems. It comprises valve block (1) and an electro-proportional pressure-reducing valve (2). Pressure oil enters at P1/P2, passes through the electro-proportional reducer (2), and is delivered to the control circuit via ports A1, A2, A3 or A4; the reducer (2) modulates pressure at A1–A4 simultaneously in proportion to the applied control current.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	2.33kg
Installation site	Any

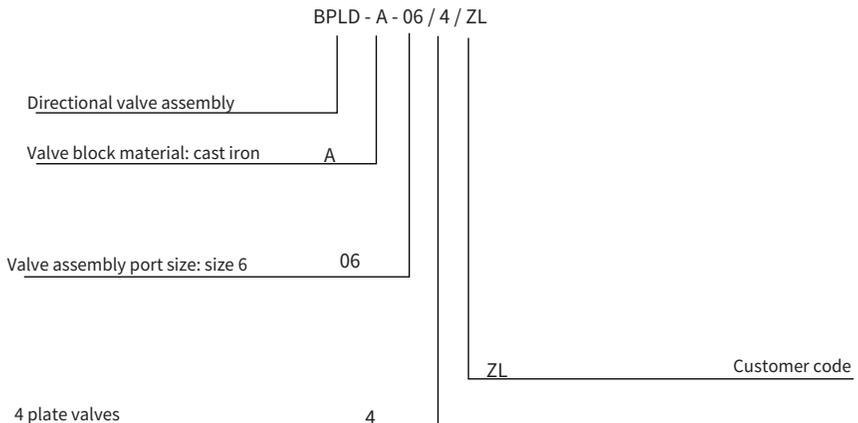
Hydraulic

Max. Inlet pressure	50bar
Working Flow	30L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid temperature range	-40to+80°C
Recommended viscosity range	7.4-420cSt
Oil contamination level	Max. contamination level: ISO 4406 19/17/14

Electrical

Rated-voltage solenoid valve	24V DC
Protection class (to DIN 40050)	IP67
Solenoid rated power	16W
Solenoid operating current	300-1300mA
Recommended PWM for solenoid	130-200Hz
Solenoid-valve connection plug	DeutschDT04-2P

Ordering parameter

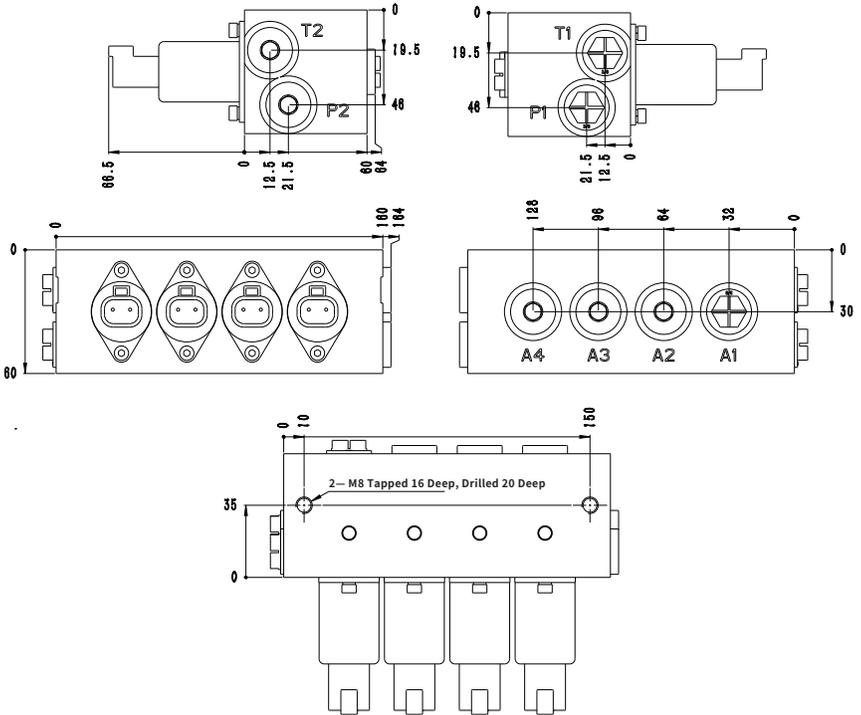


Outline Dimensions

· BPLD-A-06/4/ZL

(unit: mm)

· All port sizes=G3/8





SOLINER

8.13

BPLD-A-06/8/ZL

Seven-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	20

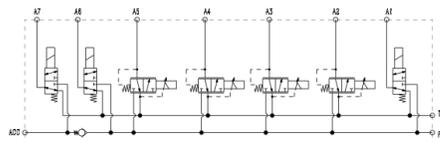
Features

- Compact design
- Fast proportional-valve response
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

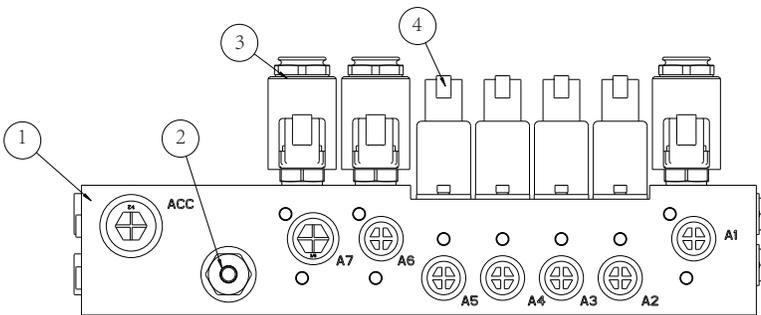
Description	02
Application	02
Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Function Symbol



Description

Model BPLD-C-06/8/ZL pilot-pressure supply manifold delivers control oil to the control unit for hydraulic or electro-hydraulic systems. It comprises valve block (1), check valve (2), solenoid valve (3) and electro-proportional pressure-reducing valve (4). Pressure oil enters at P, passes through check valve (2), and is delivered via ports A1–A7; the ACC port accepts an optional accumulator for standby pressure. Solenoid valve (3) controls on/off of ports A1, A6, A7, while proportional reducer (4) modulates pressure at ports A2–A5 in proportion to control current.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	2.33kg
Installation site	Any

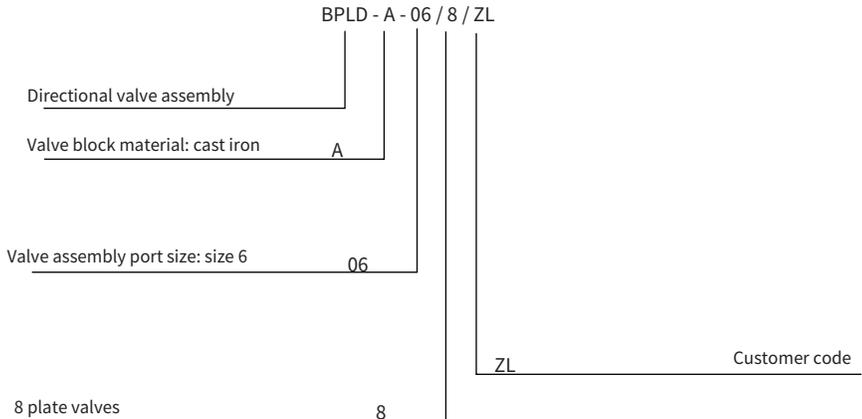
Hydraulic

Max. Inlet pressure	50bar
Working Flow	20L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid temperature range	-40to+80°C
Recommended viscosity range	7.4-420cSt
Oil contamination level	Max. contamination level: ISO 4406 19/17/14

Electrical

Rated-voltage solenoid valve	27VDC
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W (Solenoid Valve); 16W (Proportional Valve)
Solenoid operating current	300-1300mA
Recommended PWM for solenoid	130-200Hz
Solenoid-valve,Proportional valve connection plug	Deutsch DT04-2P

Ordering parameter

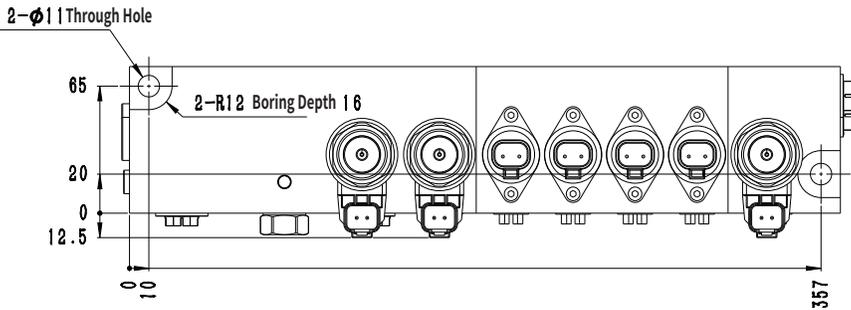
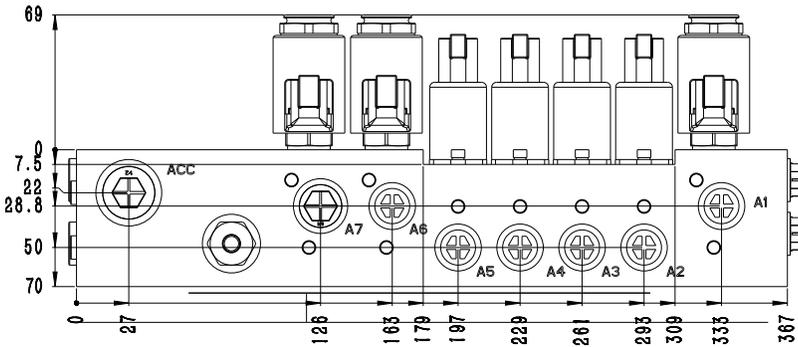
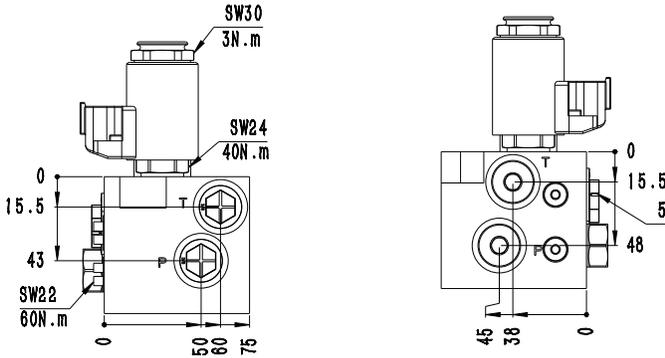


Outline Dimensions

· BPLD-A-06/8/ZL

(unit: mm)

· Port size: P、T、A7=G3/8; ACC=G1/2; A1-A6=G1/4





SOLINER

8.14

BPLD-A-06/I/XG-5

Pilot oil supply valve manifold

Rated Pressure (bar)	210
Max. Flow(L/min)	30

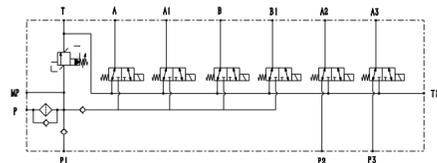
Features

- Compact design
- Quick response
- Low power consumption
- Lightweight material

Contents

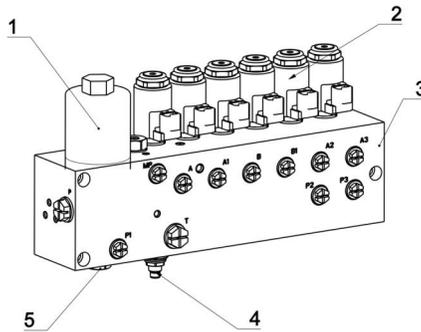
Description	02
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Ordering parameter	03
Outline Dimensions	04

Function Symbol



Description

Model BPLD-A-06/1/XG-5 pilot-pressure supply valve manifold delivers hydraulic fluid to systems requiring filtration and directional control. The manifold comprises filter (1), 2-position 3-way solenoid valve (2), valve block (3), pilot-operated relief valve (4) and check valve (5). Pressure oil enters at P and is distributed via ports A, A1, B, B1, A2, A3, MP and P1; filter (1) cleans the fluid, solenoid valve (2) provides directional switching, and pilot-operated relief valve (4) sets system pressure.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	8.51kg
Installation site	Any

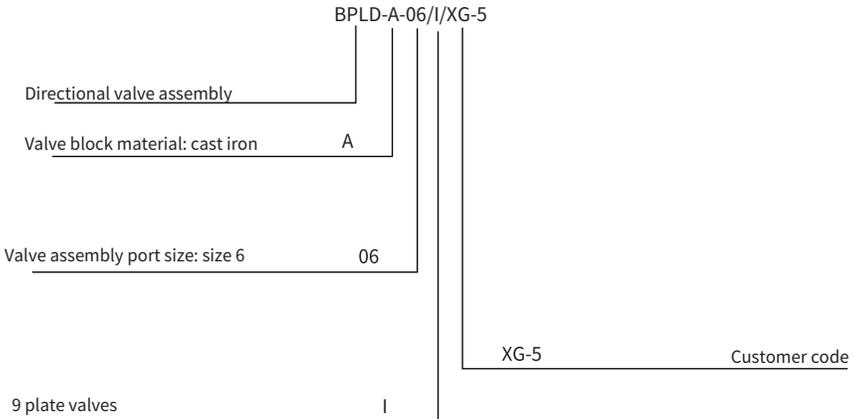
Hydraulic

Inlet pressure	Max. to210bar
Max. Flow	30L/min
Pilot relief valve adjustment range	7~105Bar
Filtration rating	10um
Bypass vlave cracking pressure	6±0.5bar
Fluid medium	Mineral oil (HL、HLP) to DIN51524
Fluid temperature range	-40to+90°C
Recommended viscosity range	ISO20~400mm ² /s
Oil contamination level	ISO440620/18/15 level

Electrical

Rated-voltage solenoid electromagnet	28V±10%DC
Protection class (to DIN 40050)	1P65

Ordering parameter





SOLINER

8.15

BPLD-A-08/3/SY

Solenoid Valve manifold

Rated Pressure (bar)	230
Max. Flow(L/min)	60

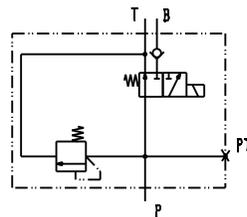
Features

- The cartridge relief valve provides pressure protection
- Low power consumption

Contents

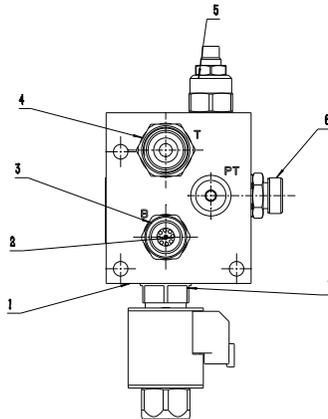
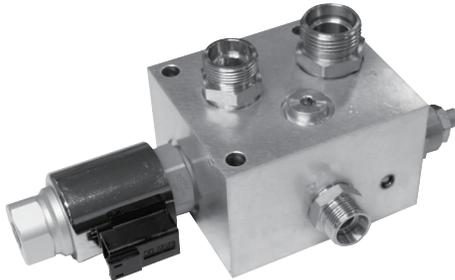
Description	02
Application	02
Technical Data	03
Ordering parameter	04
Outline Dimensions	05

Function Symbol



Description

The solenoid valve manifold supplies low-pressure control oil to the control unit and is used in medium hydraulic systems with hydraulic control and electro-hydraulic control. The solenoid valve manifold mainly consists of valve block 1, cartridge check valve 2, adapters (3, 4, 6), relief valve 5, and solenoid directional valve 7. Pressure oil enters from port P, passes through solenoid directional valve 7 and cartridge check valve 2, and then supplies pressure oil to the control circuit via port B. The relief valve 5 on the solenoid valve manifold ensures that the circuit pressure remains within a safe range. The solenoid directional valve 7 controls the flow of oil to port B, which is used for systems connected to B.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	4.2kg
Installation site	Any

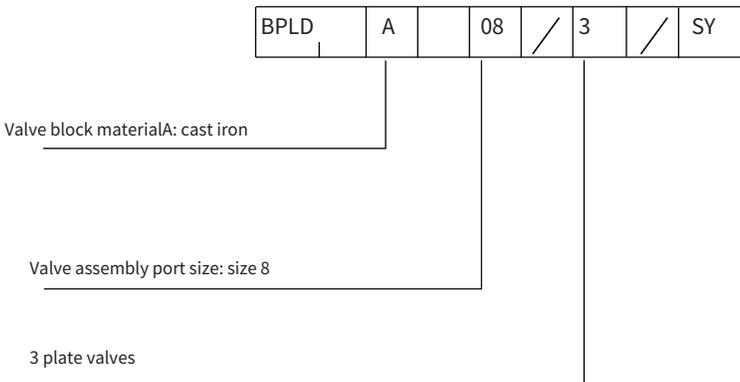
Hydraulic

Rated Pressure	230 bar
Rated flow	60 L/min
Safety valve set pressure	在38L/min时, Safety valve set pressure230Bar
Fluid temperature range	-30to+110°C
Recommended viscosity range	7.4to420 mm ² /S
Oil cleanliness	SQ440618/15

Electrical

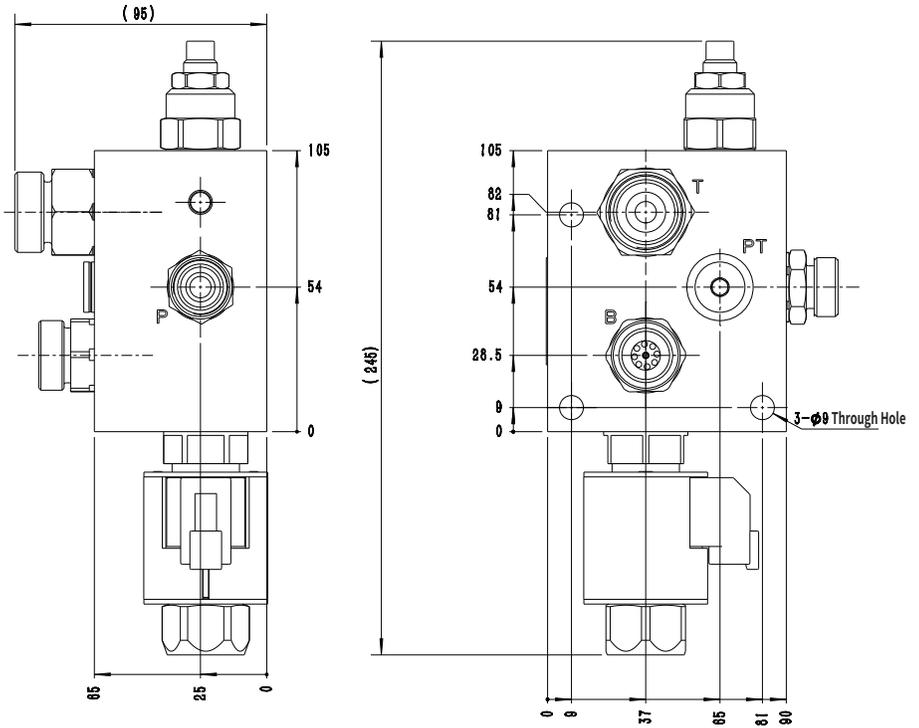
Solenoid rated voltage	12V±10% VDC
Solenoid minimum voltage	normal voltage90%
Electrical protection class	IP69 mA

Ordering parameter



Outline Dimensions

Port size: PportM18x1.5 (ED seal) ; TportM27x2 (ED seal) ; BportG1/2 (ED seal) ; PTportM14x1.5(O-ring seal) (unit: mm)
seal) ; PTportM14x1.5(O-ring seal)





SOLINER

8.16

BPLD-A-10/5/XG

Sweeper valve manifold

Rated Pressure (bar)	210
Max. Flow(L/min)	140

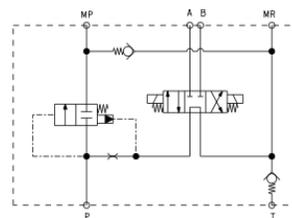
Features

- Compact construction
- Fast-response solenoid valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

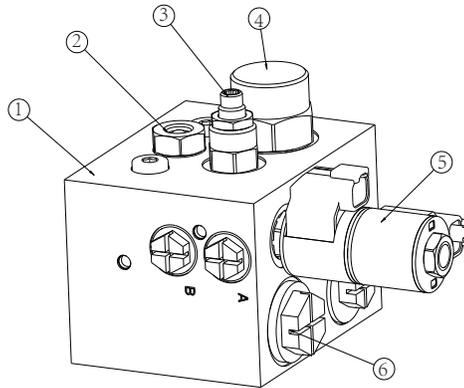
Description	02
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Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Graphical symbol



Description

Model BPLD-A-10/5/XG pilot-pressure supply manifold is used in medium- and high-pressure hydraulic or electro-hydraulic systems. The pilot manifold consists of valve block (1), check valve (2), throttle valve (3), hydraulic logic valve (4), solenoid valve (5) and embedded check valve (6). Pressure oil enters at port P and, after passing through throttle valve (3), supplies control pressure to the circuit via ports A or B. Solenoid valve (5) controls the on/off flow of oil at ports A and B.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	4.47kg
Installation site	Any

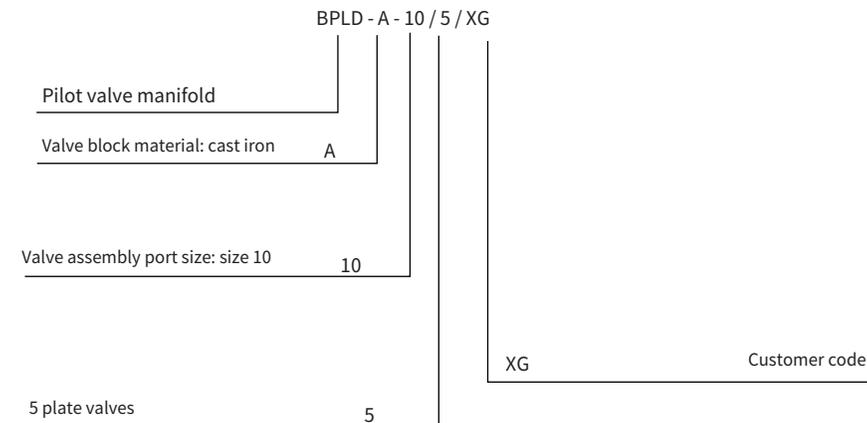
Hydraulic

Inlet pressure	Max. to 210bar
Max. flow	140L/min
Fluid medium	Mineral oil(HL、HLP):DIN51524
Fluid mediumTemperature range	-20 to +80°C
Recommended viscosity range	20 to 420mm/S
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15

Electrical

Rated-voltage electricalmagnet	12VDC
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W

Ordering parameter

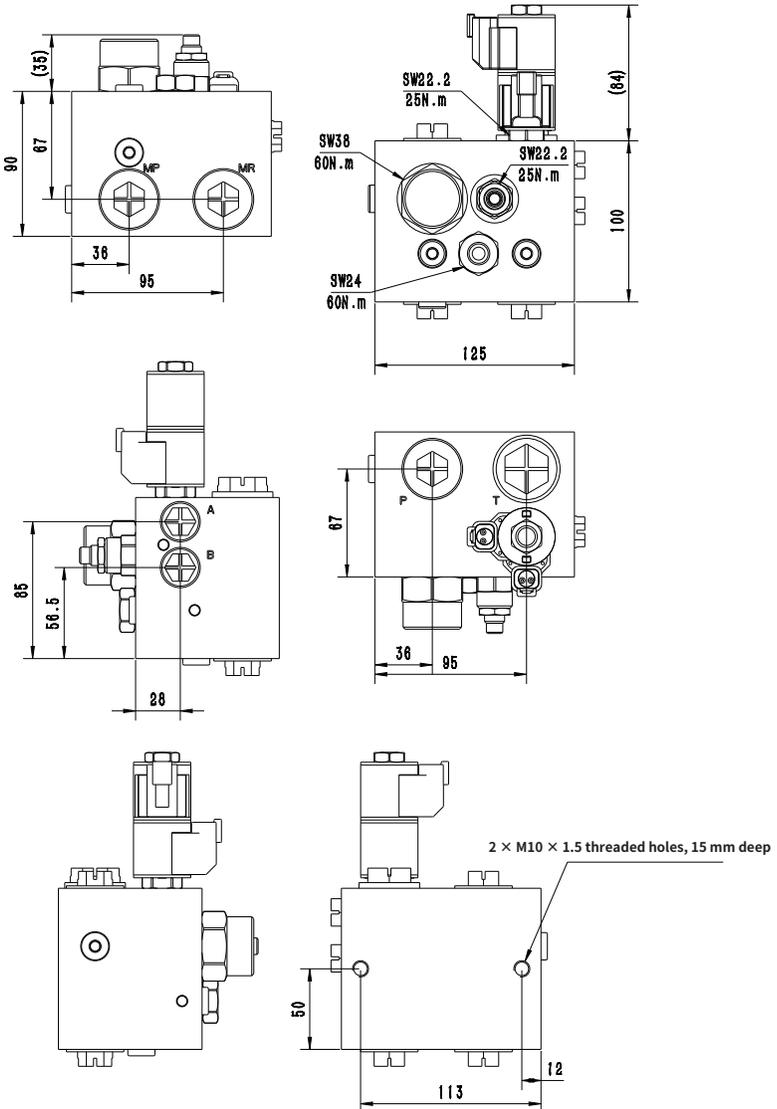


Outline Dimensions

· BPLD-A-10/5/XG

· Port size: P, MP, MR=M26x1.5; A, B=M14x1.5

(Unit : mm)





SOLINER

8.17

BPLD-C-06/1/BJ

Single-section directional manifold

Rated Pressure (bar)	350
Max. Flow(L/min)	80

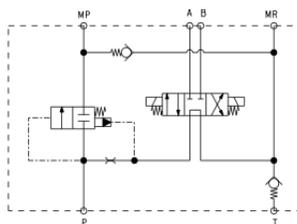
Features

- Compact construction
- Fast-response solenoid valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

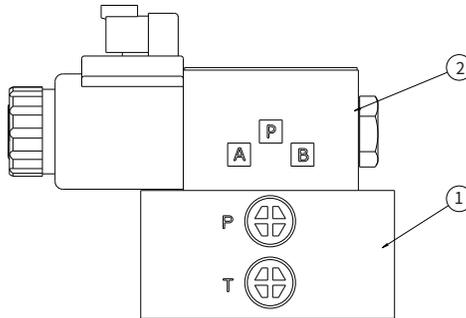
Description	02
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Outline Dimensions	04

Graphical symbol



Description

Model BPLD-C-06/1/BJ pilot-pressure supply manifold delivers control oil to the control unit for hydraulic or electro-hydraulic systems. It consists of valve block (1) and a 2-position, 4-way solenoid valve (2). Pressure oil enters at port P, passes through the 2-position, 4-way solenoid valve, and supplies control pressure to the circuit via ports A or B; the solenoid valve (2) controls on/off flow at ports A and B.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	3.95kg
Installation site	Any

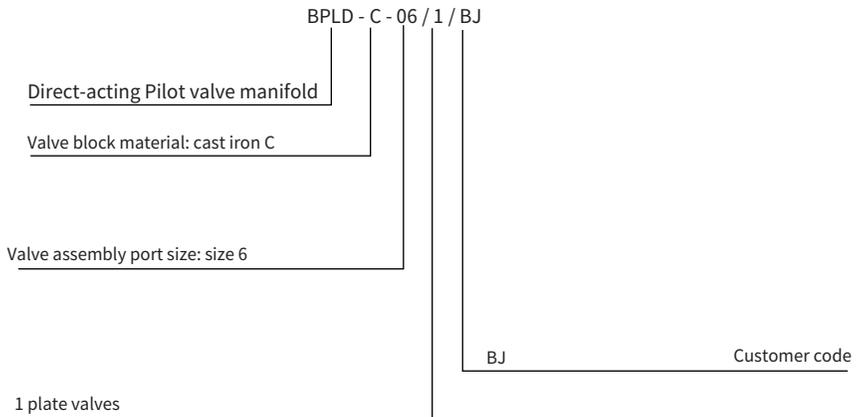
Hydraulic

Working pressure	350bar
Working flow	80L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid mediumTemperature range	-40 to +80°C
Recommended viscosity range	7.4-420cSt
Fluid cleanliness	Max. contamination level ISO 4406 19/17/14

Electrical

Rated-voltage solenoid valve	24VDC
Protection class (to DIN 40050)	IP67
Solenoid rated power	30W
Solenoid-valve connection plug	Deutsch DT04-2P

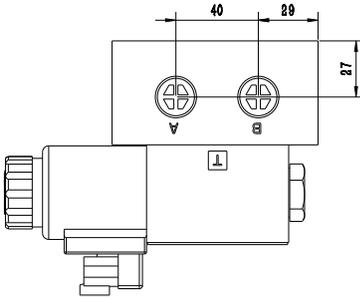
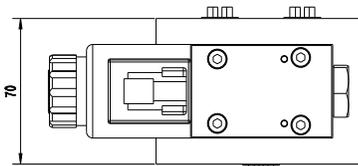
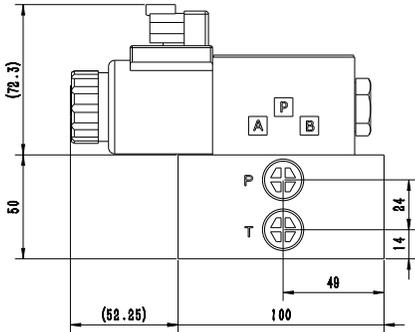
Ordering parameter



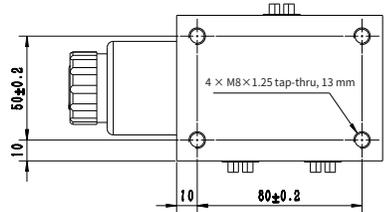
Outline Dimensions

- BPLD-C-06/1/BJ
- All port sizes=G1/4

(Unit : mm)



Mounting dimensions





SOLINER

8.18

BPLD-C-06/1E/XG-3

Six-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	5

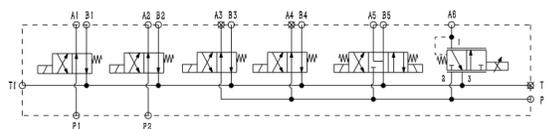
Features

- Compact construction
- Fast-response solenoid valve and proportional valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

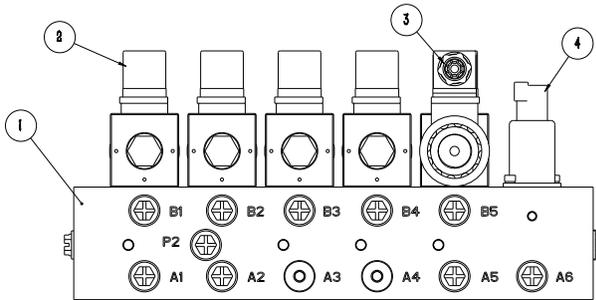
Description	02
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Graphical symbol



Description

Model BPLD-C-06/1E/XG-3 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for low-pressure hydraulic or electro-hydraulic systems. The manifold consists of valve block (1), 2-position 4-way solenoid valve (2), 3-position 4-way solenoid valve (3) and electro-proportional valve (4). Pressure oil enters at P, P1, P2, passes through solenoid valves (2)(3)(4), and supplies low control pressure to the circuit via ports A1-A6 or B1-B5. Electro-proportional valve (4) controls on/off flow at port A6.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	20.02kg
Installation site	Any

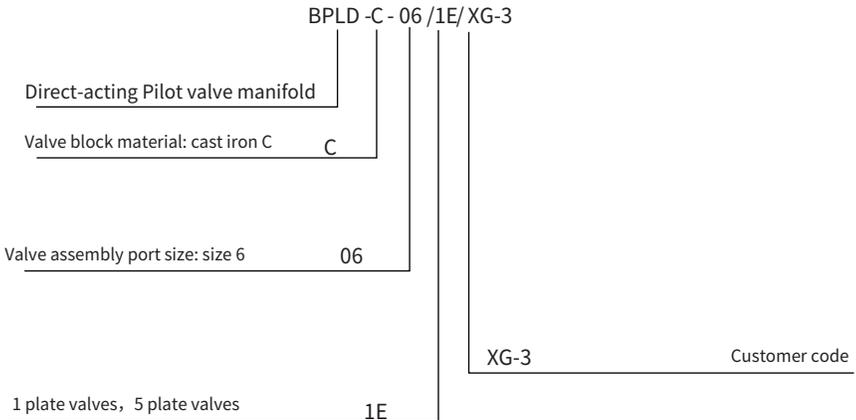
Hydraulic

Max. pressure at P port	Max. to 50bar
Max. pressure at T port	Max. to 30bar
Rated flow	5L/min
Maximum allowable back pressure	10bar
Fluid medium	Mineral oil(HL、HLP);DIN51524
Fluid mediumTemperature range	40 to +90°C
Recommended viscosity range	7.4-420cSt
Fluid cleanliness	Max. contamination level ISO 4406 19/17/14

Electrical

Rated-voltage solenoid valve	28VDC
Protection class (to DIN 40050)	IP65
Solenoi proportional valve Max.working current	750mA
Solenoi proportional valve connection plug	Deutsch DT04-2P

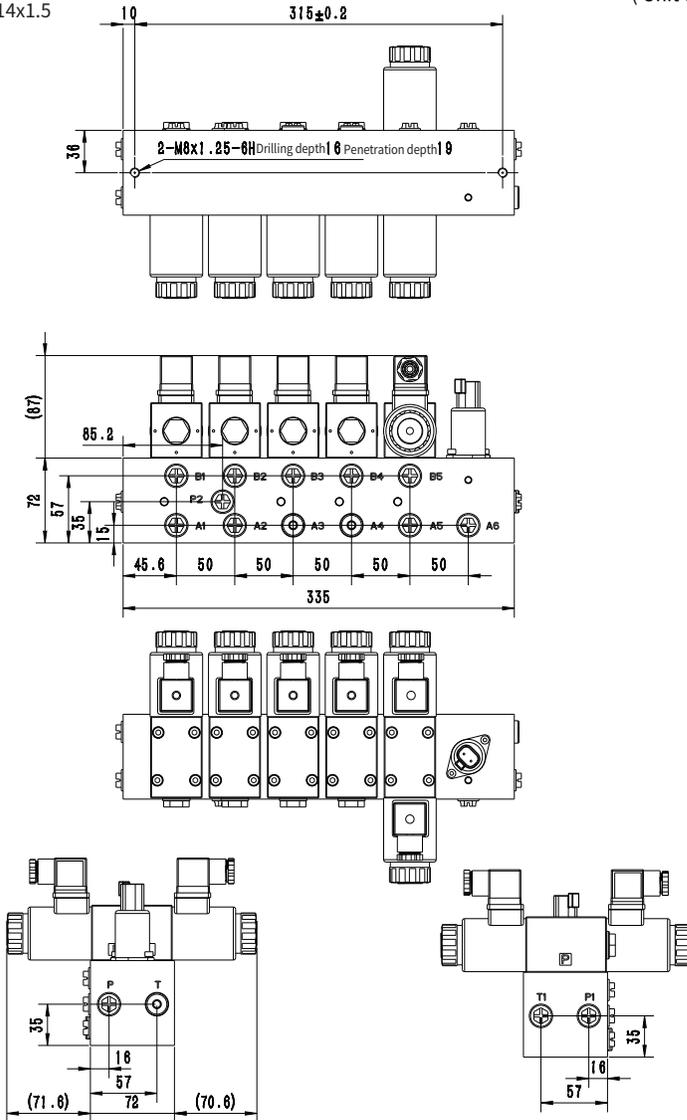
Ordering parameter



Outline Dimensions

- BPLD-C-06/1E/XG-3
- All port sizes=M14x1.5

(Unit : mm)





SOLINER

8.19

BPLD-C-06/2B/XG-2

Six-section valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

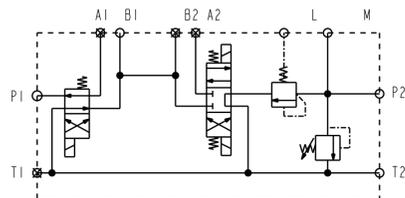
Features

- Provides stable pressure during flow-combining
- Suitable for dual-source hydraulic systems
- Enables dynamic unloading during flow-combining
- Wider operating-pressure range
- Lower overall cost

Contents

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Outline Dimensions	04

Graphical symbol



Description

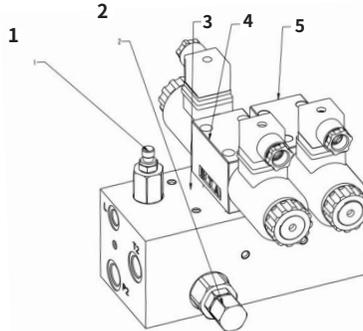
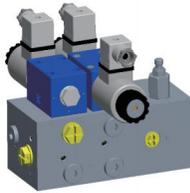
Model BPLD-C-06/2B/XG-2 flow-combining manifold supplies high-pressure control oil from two sources

when system pressure is insufficient, mainly used in dual-pump medium-/high-pressure hydraulic systems.

The assembly consists of cartridge sequence valve (1), cartridge relief valve (2), valve block (3), 3-position 4-way directional valve (4) and 2-position 4-way directional valve (5) connected via sub-plate; pressure oil enters at P1 and P2, return flows to T2. Under normal conditions the 3-position 4-way valve is in neutral (M-centre), venting P2 to T2. When high-pressure oil is required at B1, the 3-position valve shifts to combine P1 and P2 to feed B1. The sequence and relief valves on P2 ensure system safety, provide stable pressure and enable dynamic unloading when pressure exceeds the setting.

Note:

This manifold is intended for dual-pump controlled mobile machinery hydraulic systems.



Application



Excavator



Backhoe loader



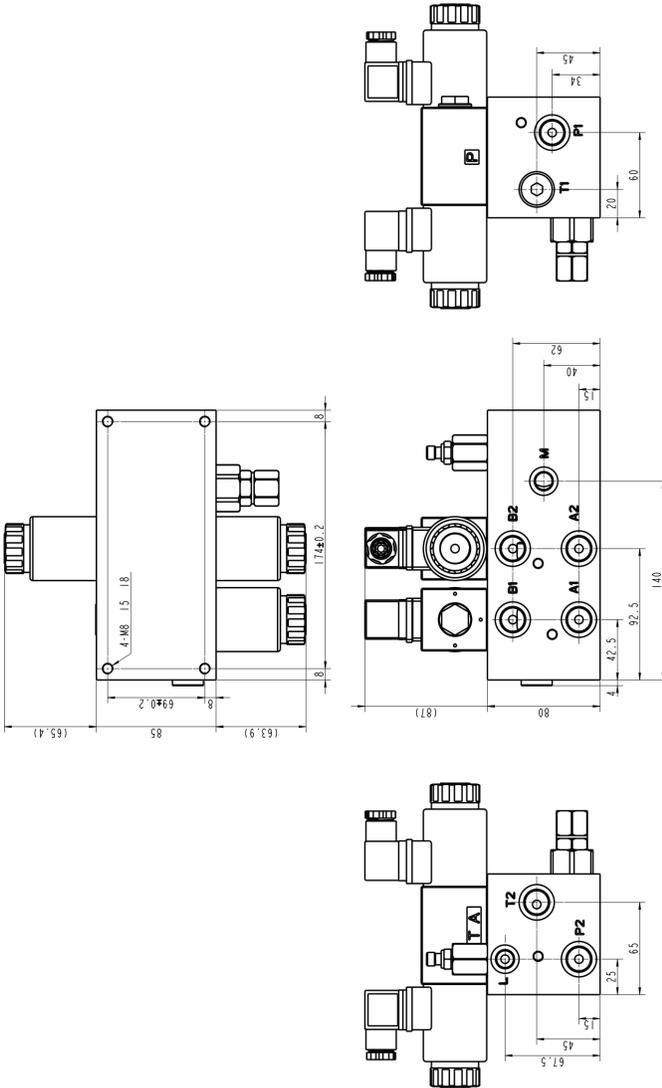
Wheel loader



Crane

Outline Dimensions

(Unit : mm)





SOLINER

8.20

BPLD-C-06/4/LG-3

Triple-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	16

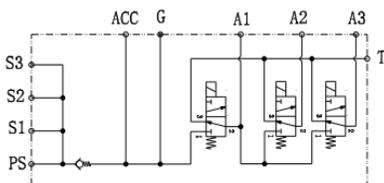
Features

- Compact construction
- Fast-response solenoid valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

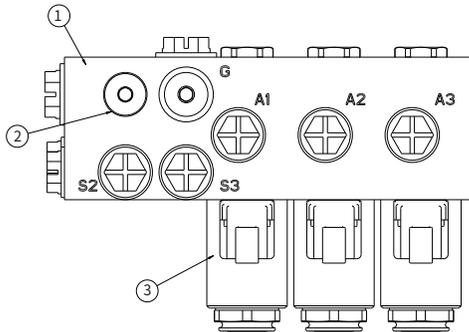
Description	02
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Outline Dimensions	04

Graphical symbol



Description

Model BPLD-C-06/4/LG-3 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for low-pressure hydraulic or electro-hydraulic systems. It comprises valve block (1), embedded check valve (2) and solenoid valve (3). Pressure oil enters at S1, S2, S3, PS, passes through embedded check valve (2), and is delivered via ports A1, A2 or A3; the ACC port accepts an optional accumulator for standby pressure. Solenoid directional valve (3) controls on/off flow at ports A1, A2 and A3.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	6.08kg
Installation site	Any

Hydraulic

Inlet pressure	Max. to 50bar
Max. flow	16L/min
Fluid medium	Mineral oil(HL、HLP):DIN51524
Fluid medium Temperature range	-20 to +80°C
Recommended viscosity range	20 to 420mm ² /S
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15

Electrical

Rated-voltage electricalmagnet	27V DC
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W

Ordering parameter

BPLD - C - 064// LG3

Direct-acting Pilot valve manifold

Valve block material: cast iron C

C

Valve assembly port size: size 6

06

4 plate valves

4

LG3

Customer code



SOLINER

8.21

BPLD-C-06/5/LG-1

Dual reducing & relief valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	16

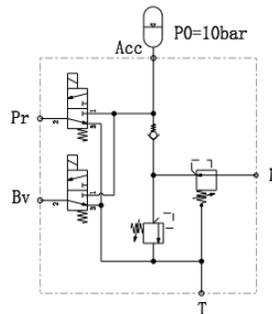
Features

- Compact construction
- Fast-response solenoid valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

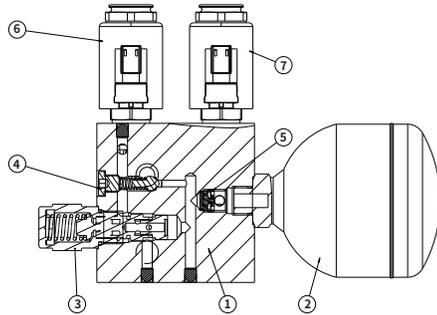
Description	02
Application	02
Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Graphical symbol



Description

Model BPLD-C-06/4/LG-3 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for low-pressure hydraulic or electro-hydraulic systems. It comprises valve block (1), embedded check valve (2) and solenoid valve (3). Pressure oil enters at S1, S2, S3, PS, passes through embedded check valve (2), and is delivered via ports A1, A2 or A3; the ACC port accepts an optional accumulator for standby pressure. Solenoid directional valve (3) controls on/off flow at ports A1, A2 and A3.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	8kg
Installation site	Any

Hydraulic

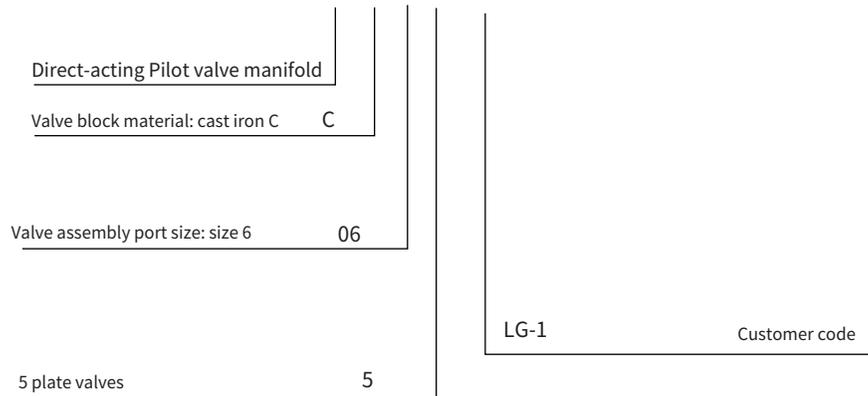
Inlet pressure	Max. to 50bar
Max. flow	16L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid mediumTemperature range	-20 to +80°C
Recommended viscosity range	20 to 420mm ² /S
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15

Electrical

Rated-voltage electricalmagnet	27V DC
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W

Ordering parameter

BPLD - C - 06 / 5 / LG-1

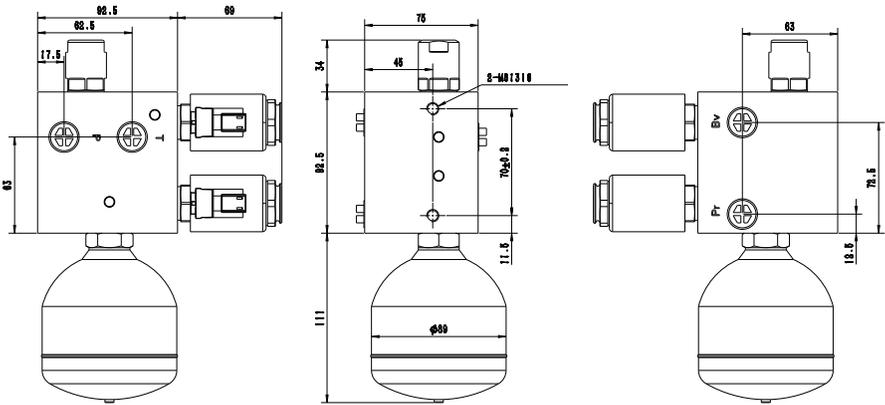


Outline Dimensions

· BPLD-C-06/4/LG-3

· Port size: S1-S3, T, G, A1-A3=9/16-18UNF; PS, ACC=3/4-16UNF

(Unit : mm)





SOLINER

8.22

BPLD-C-06/5/LG-2

Dual reducing & relief valve manifold

Accumulator (L)	0.32
Rated Pressure (bar)	350
Max. Flow(L/min)	20

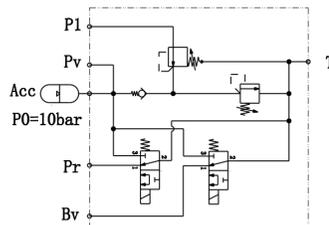
Features

- Can be directly supplied from the high-pressure circuit
- Cartridge relief valve safeguards the pilot circuit
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

Description	02
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Ordering parameter	03
Outline Dimensions	04

Graphical symbol

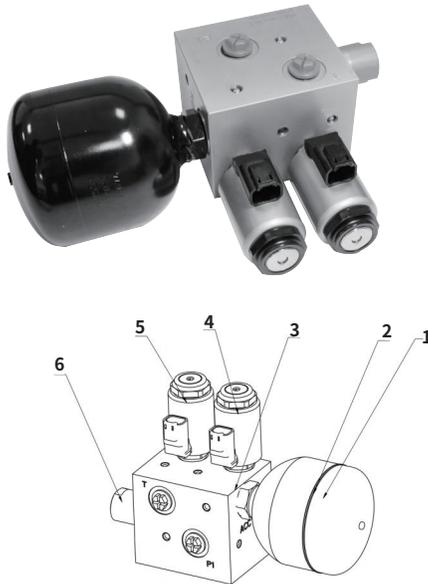


Description

Model BPLD-C-06/5/LG-2 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for medium-/high-pressure hydraulic or electro-hydraulic systems. It comprises accumulator (1), embedded check valve (2), valve block (3) and reducing/relief valve (6). Pressure oil enters at P1, passes through reducing/relief valve (6) and check valve (2), and is delivered via ports PV or PR; accumulator (1) acts as a standby source, while reducing/relief valve (6) keeps circuit pressure within safe limits even if the reducing function fails. Solenoid directional valves (4, 5) control on/off of ports BV and PR for two-point hydraulic-motor control (BV) and pilot-circuit drain (PR) for safety.

Note:

Used on machines without a separate pilot pump; if the accumulator is empty or not fitted, one of the working circuits must supply approx. 10 bar to the pilot circuit at start-up.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	5.2kg
Installation site	Any

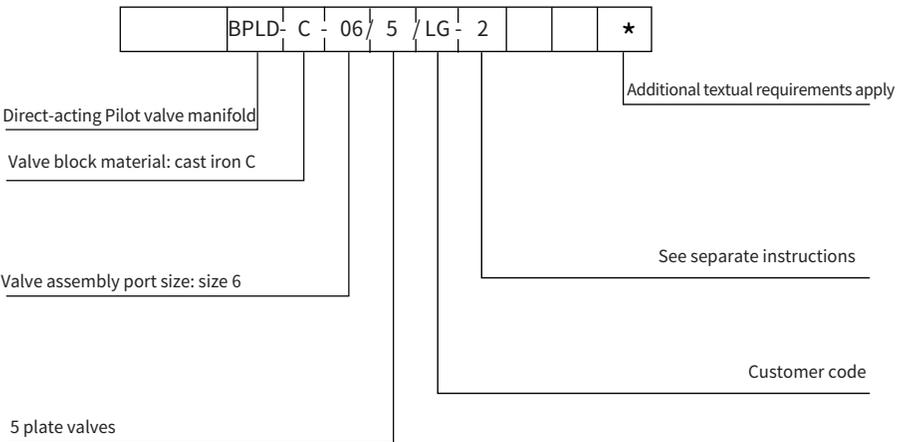
Hydraulic

Inlet pressure	Max. to 350bar
Reducing valve outlet pressure	33 to 37Bar
Max. flow	20 L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid mediumTemperature range	-20 to +90°C
Recommended viscosity range	10 to 420mm ² /S
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15

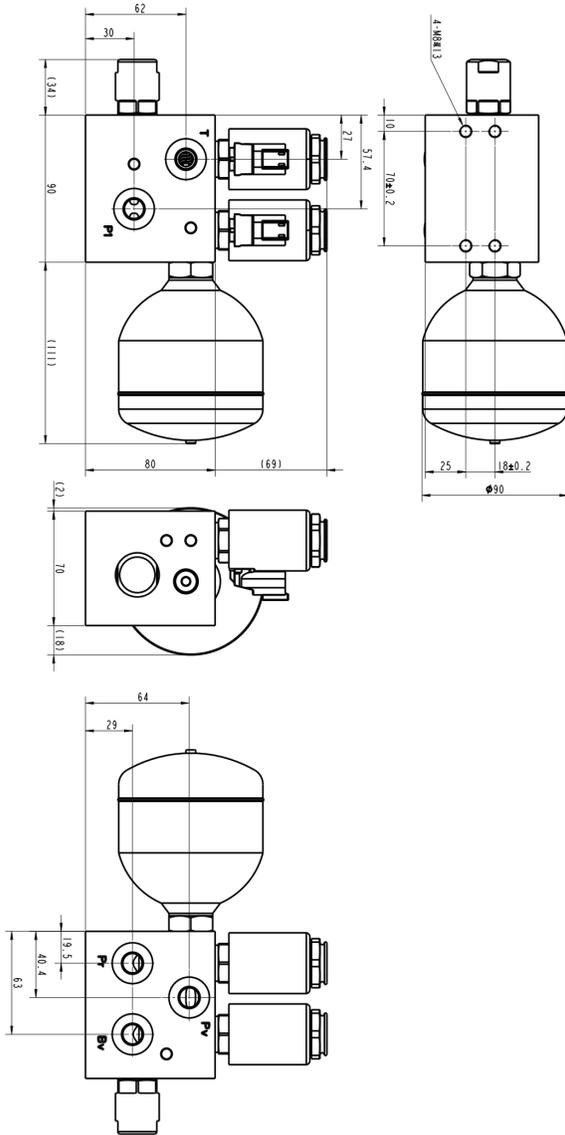
Electrical

Rated-voltage electricalmagnet	DC14V±15%
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W

Ordering parameter



Outline Dimensions



(Unit : mm)



SOLINER

8.23

BPLD-C-06/5/LG-4

Quad-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	16

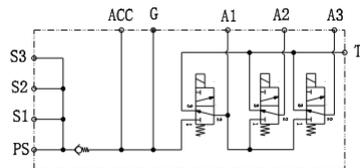
Features

- Compact construction
- Fast-response solenoid valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

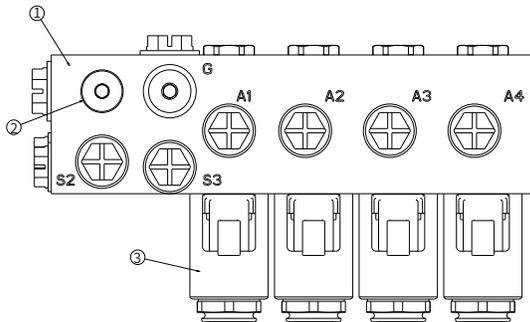
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Application	02
Technical Data	03
Ordering parameter	03
Outline Dimensions	04

Graphical symbol



Description

Model BPLD-C-06/5/LG-4 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for low-pressure hydraulic or electro-hydraulic systems. It comprises valve block (1), embedded check valve (2) and solenoid valve (3). Pressure oil enters at S1, S2, S3, PS, passes through embedded check valve (2), and is delivered via ports A1, A2, A3 or A4; the ACC port accepts an optional accumulator for standby pressure. Solenoid directional valve (3) controls on/off flow at ports A1, A2, A3 and A4.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	7.43kg
Installation site	Any

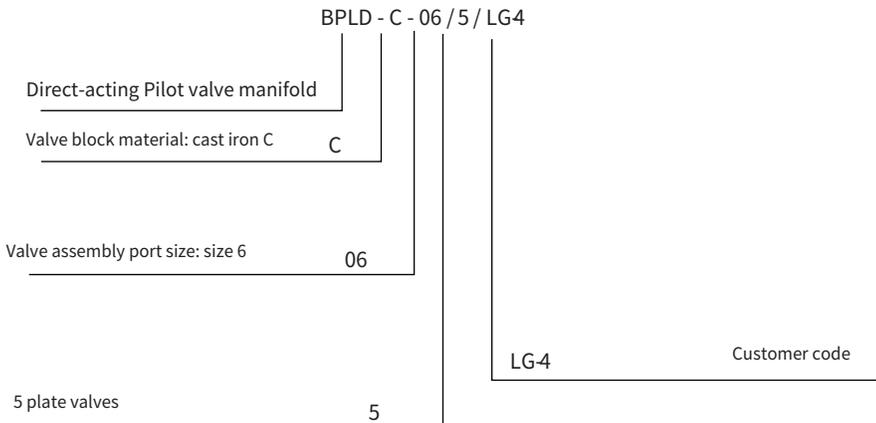
Hydraulic

Inlet pressure	Max. to 50bar
Max. flow	16L/min
Fluid medium	Mineral oil(HL、 HLP);DIN51524
Fluid mediumTemperature range	-20 to +80°C
Recommended viscosity range	20 to 420mm ² /S
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15

Electrical

Rated-voltage electricalmagnet	27VDC
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W

Ordering parameter

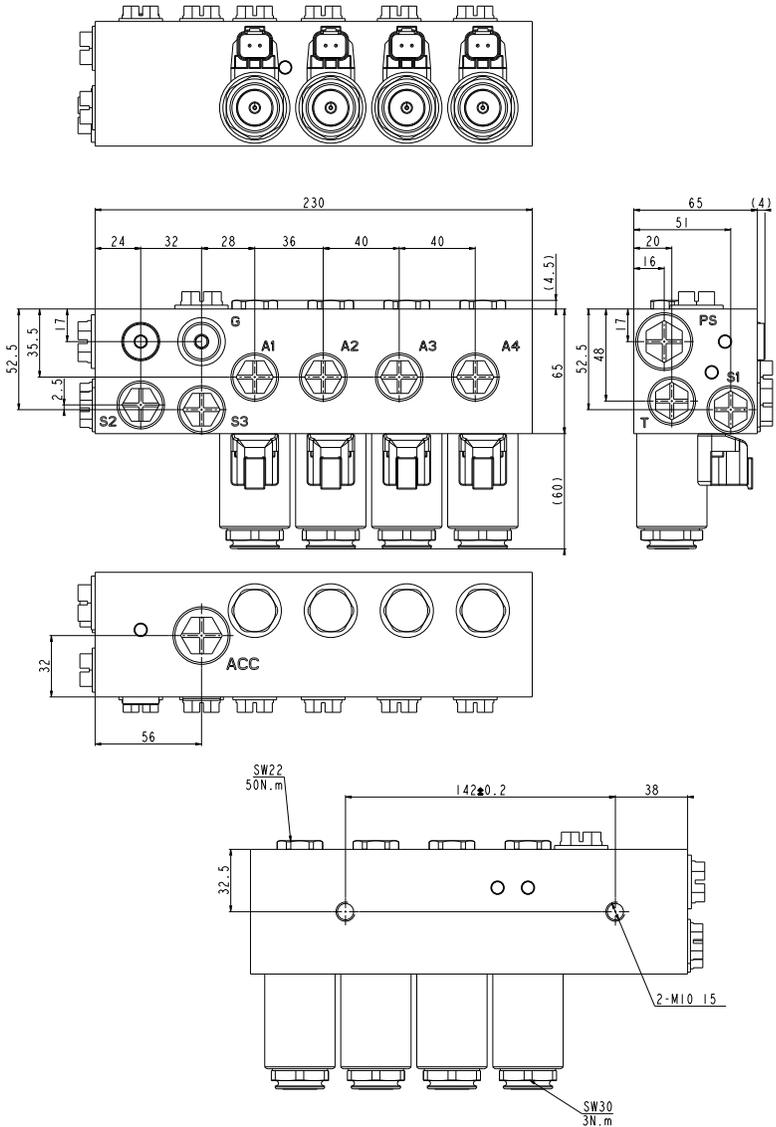


Outline Dimensions

· BPLD-C-06/5/LG-4

(Unit : mm)

· Port size: S1-S3, T, G, A1-A4=9/16-18UNF; PS, ACC=3/4-16UNF





SOLINER

8.24

BPLD-C-06/5/SY

Pilot valve manifold

Accumulator (L)	0.32
Rated Pressure (bar)	350
Max. Flow(L/min)	20

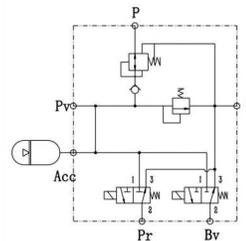
Features

- Can be directly supplied from the high-pressure circuit
- Cartridge relief valve safeguards the pilot circuit
- Compact unit supplying low-pressure pilot oil
- Low power consumption

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Graphical symbol

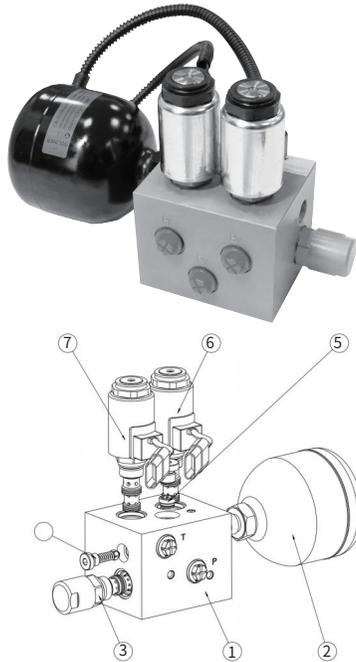


Description

Model BPLD-C-06/5/SY pilot-pressure supply manifold delivers low-pressure control oil to the control unit for medium-/high-pressure hydraulic or electro-hydraulic systems. It comprises valve block (1), accumulator (2), pressure-reducing valve (3), direct-acting relief valve (4) and check valve (5). Oil enters at P1, passes through reducer (3) and check valve (5), and is delivered via ports BV or PR; accumulator (2) acts as a standby source, while direct-acting relief valve (4) keeps circuit pressure within safe limits should reducer (3) fail. Solenoid directional valves (6, 7) control on/off of ports BV and PR for two-point hydraulic-motor control (BV) and pilot-circuit drain (PR) for safety.

Note:

Used on machines without a separate pilot pump; if the accumulator is empty or not fitted, one of the working circuits must supply approximately 10 bar to the pilot circuit at start-up.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	8.5kg
Installation site	Any

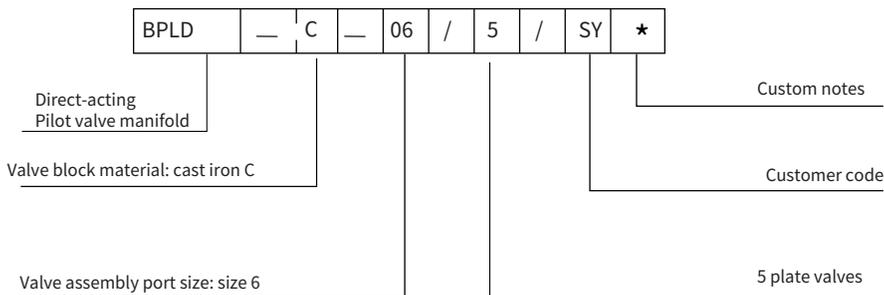
Hydraulic

Inlet pressure	-0.350	Max. to 350 bar
Reducing valve outlet pressure	-0.350	33 to 37bar
Max. flow	-0.350	20 L/min
Fluid medium	Mineral oil(HL、HLP):DIN51524	
Fluid medium temperature range	-20 to +90 °C	
Recommended viscosity range	10 to 420 mm ² /S	
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15	

Electrical

Rated-voltage electricalmagnet	27VDC
Protection class (to DIN 40050)	IP67
Solenoid rated power	20W

Ordering parameter

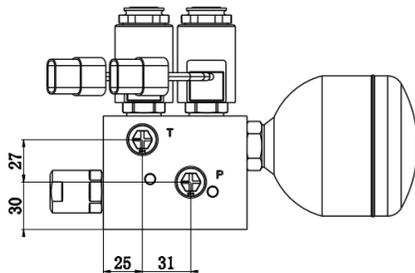
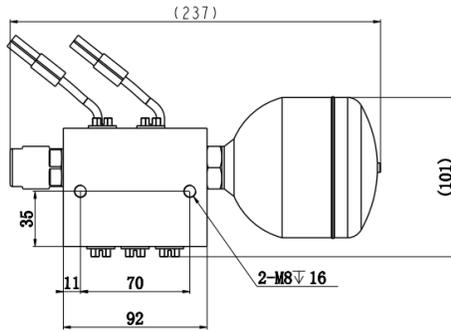
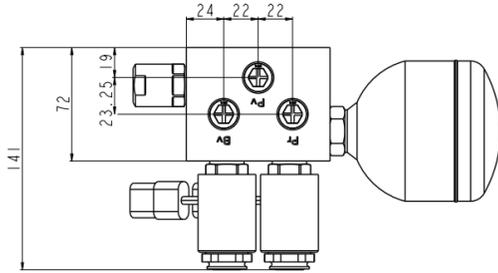


Outline Dimensions

· BPLD-C-06/5/SY

(Unit : mm)

· Port size: P, T, PV, PR, BV=G1/4





SOLINER

8.25

BPLD-C-06/7/TZ

Six-section valve manifold

Rated Pressure (bar)	50
Max. Flow(L/min)	15

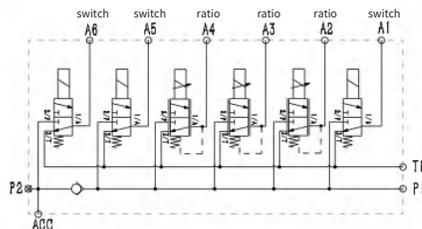
Features

- Compact construction
- Fast-response proportional valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

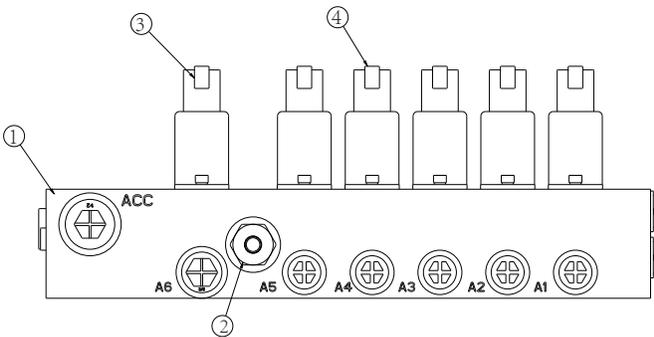
Description	02
Application	02
Technical Data	03
	03
Outline Dimensions	05

Graphical symbol



Description

Model BPLD-A-06/7/TZ pilot-pressure supply manifold delivers low-pressure control oil to the control unit for low-pressure hydraulic or electro-hydraulic systems. It comprises valve block (1), check valve (2), solenoid on/off valve (3) and electro-proportional reducing valve (4). Oil enters at P1, passes through check valve (2), and is delivered via ports A1-A6; the ACC port accepts an optional accumulator for standby pressure. Solenoid on/off valve (3) controls flow at A1, A5, A6, while proportional reducer (4) regulates pressure at the remaining ports.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	5.05 kg
Installation site	Any

Hydraulic

Inlet pressure	Max. to 50bar
Proportional Pressure-Reducing ValveMax. flow	10L/min@60bar
Solenoid on/off valveMax. flow	15L/min@60bar
Maximum allowable back pressure	10bar
Fluid medium	Mineral oil(HL、HLP):DIN51524
Fluid mediumTemperature range	-20 to +80°C
Recommended viscosity range	20 to 420mm ² /S
Fluid cleanliness	Max. contamination level NAS 1638 / ISO 4406 20/18/15

Electrical (Proportional Pressure-Reducing Valve)

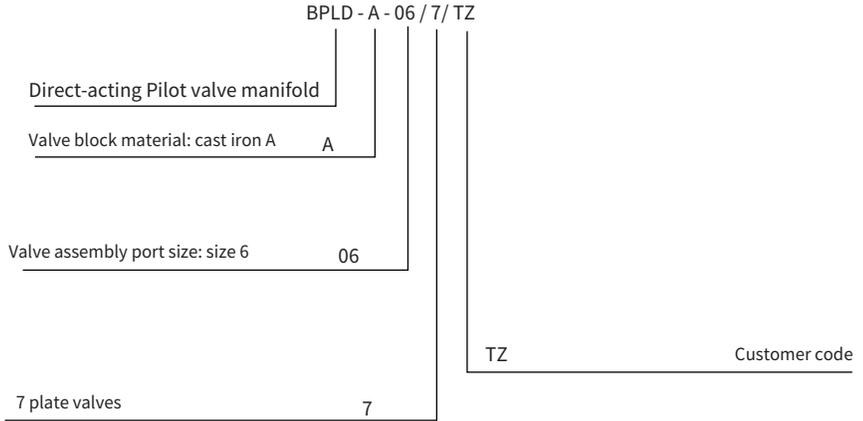
Rated-voltage electricalmagnet	24VDC
Protection class (to DIN 40050)	IP67
Solenoid operating current	300-1300mA
Recommended PWM for solenoid	130-200Hz
Solenoid operating resistance	9.5Ω@20°C
Connecting joint	Deutsch DT04-2P

Electrical (Solenoid on/off valve)

Rated-voltage electricalmagnet	24VDC
Protection class (to DIN 40050)	IP67
Solenoid coil resistance	36.5Q@20°C
Connection plug	Deutsch DT04-2P

Custom notes

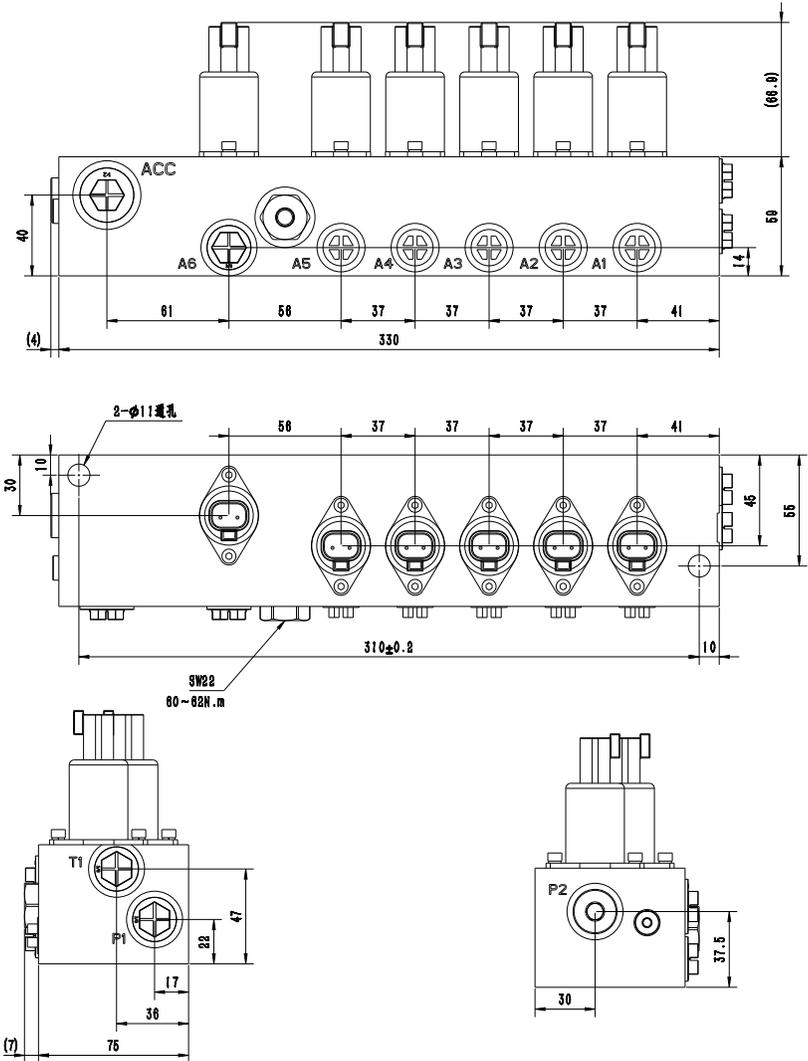
Ordering parameter



Outline Dimensions

(Unit : mm)

- BPLD-A-06/7/TZ
- Port size:A1-A5=G1/4;P1, P2, T1, A6=G3/8; ACC=G1/2







SOLINER

8.26

BPLD-C-06/C/XG-6

Integrated valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

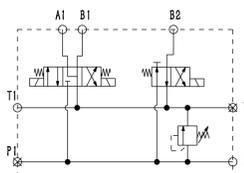
Features

- Safe and reliable with multiple work ports
- Compatible with dual-source hydraulic systems
- Automatic pressure relief when system pressure exceeds limit
- Wider pressure range adaptability
- Lower overall cost
- Easy maintenance

Contents

Description	02
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Outline Dimensions	04

Graphical symbol

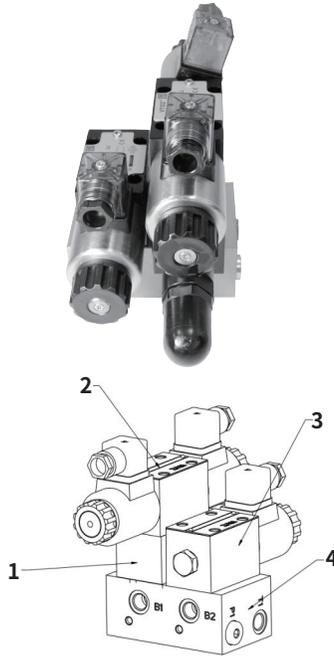


Description

Model BPLD-C-06/C/XG-6 integrated manifold can control two medium-/high-pressure systems simultaneously and is suitable for dual-pump medium-/high-pressure circuits. It comprises relief valve (1), 3-position 4-way solenoid valve (2), 2-position 4-way solenoid valve (3) and valve block (4) connected via sub-plate; pressure oil enters at P, returns at T. In neutral the 3-position valve offers Y-centre, unloading the circuit connected to ports A1/B1; the double-acting cylinder or motor in this circuit can move in both directions (or rotate forward/reverse), ensuring safe overall performance and stable unloading under high pressure.

Note:

This manifold is typically used on construction machinery with frequent directional changes at medium/high pressure.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	8.97kg
Port size:	All Port size:M14X1.5 (EDSeal)
Installation site	Any

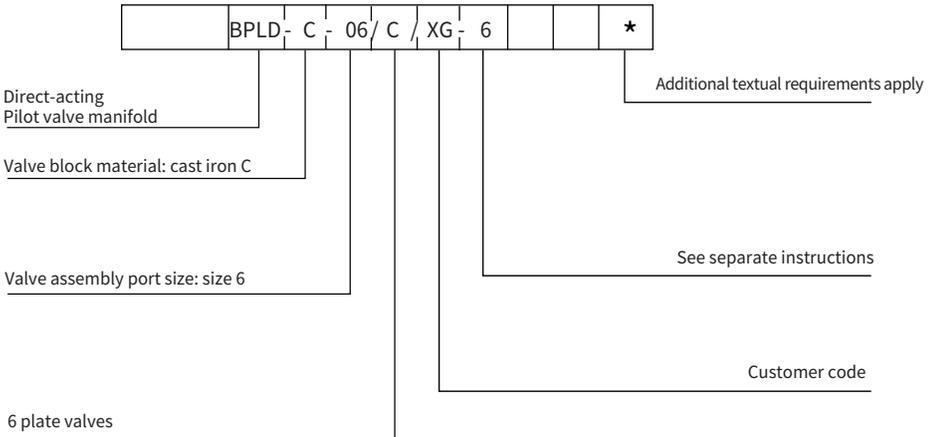
Hydraulic

Inlet pressure	Max. to 350bar
Relief valve setting pressure	25bar@15L/min
Max. flow	60 L/min
Fluid medium	Mineral oil(HL,HLP)to DIN 51524
Fluid mediumTemperature range	-40 to +90°C
Recommended viscosity range	7.4 to 420mm ² /S
Fluid cleanliness	Max. contamination level ISO 19/17/14

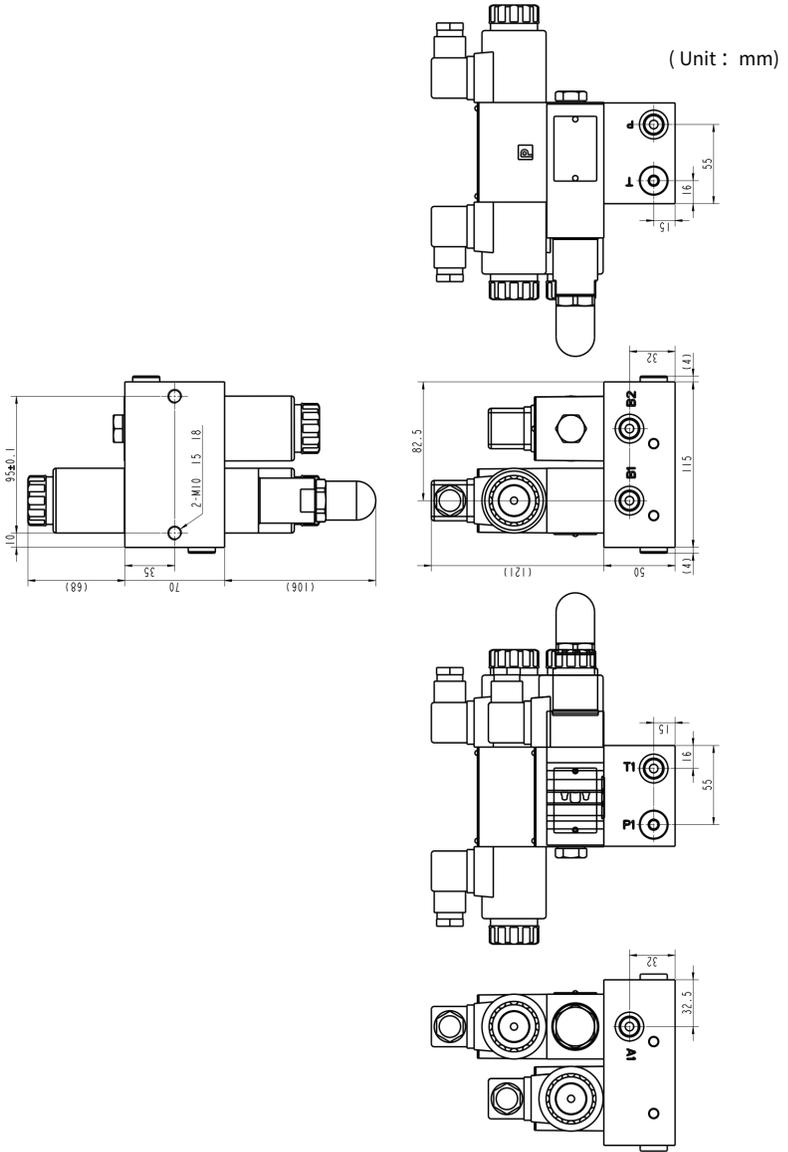
Electrical

Rated-voltage electricalmagnet	DCV28±10%
Protection class (to DIN 40050)	DIN 43650 IP65
Solenoid rated power	30W

Ordering parameter



Outline Dimensions





SOLINER

8.27

BPLD-C-06/G/XG-8

Seven-section valve manifold

Rated Pressure (bar)	315
Max. Flow(L/min)	60

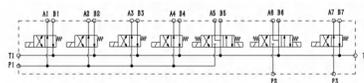
Features

- Independent, high-performance control-loop unit group
- Seven-section manifold provides pressure protection for pilot circuits
- Seven-section manifold provides pressure protection for pilot circuits
- Wider operating-pressure range

Contents

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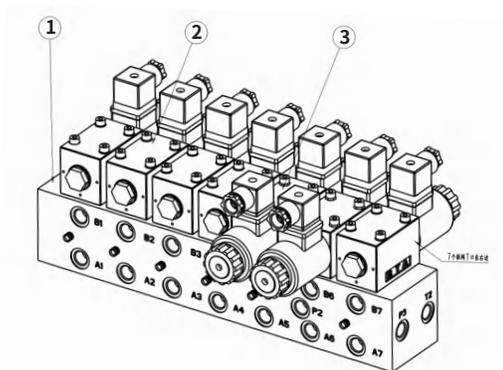
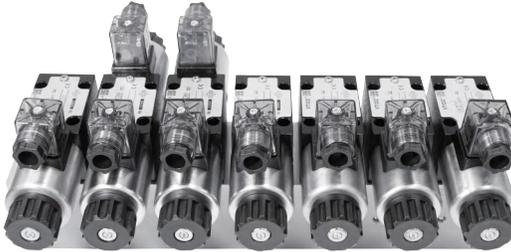
Graphical symbol



Description

Model BPLD-C-06/G/XG-8 seven-section manifold supplies medium-/high-pressure control oil to the control unit for electro-hydraulic medium-/high-pressure systems. It comprises valve block (1), five 2-position 4-way solenoid valves (2) and two 3-position 4-way solenoid valves (3) connected via sub-plate; pressure oil enters at P1, P2, P3, returns at T1, T2. Ports A1B1, A2B2, A3B3, A4B4 simultaneously control four identical circuits; A5B5, A6B6, A7B7 each control a separate circuit. Both 3-position valves have Y-type neutral, allowing their circuits to self-unload.

Note: BPLD-C-06/G/XG-8 is typically used on medium-/high-pressure electro-hydraulic construction machinery with numerous circuits.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	16.95kg
Port size:	All ports : M14X1.5(EDSeal)
Installation site	Any

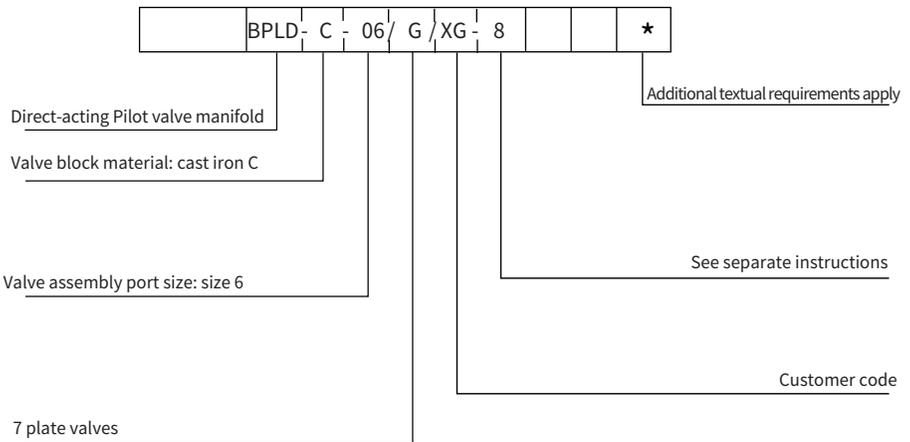
Hydraulic

Inlet pressure	Max. to 315bar
Max. flow	60 L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid mediumTemperature range	-20 to +80°C
Recommended viscosity range	20 to 400mm/S
Fluid cleanliness	Max. contamination level ISO 19/17/14

Electrical

Rated-voltage electricalmagnet	DCV28±10%
Protection class (to DIN 40050)	DIN 43650 IP65
Solenoid rated power	30W

Ordering parameter





SOLINER

8.28

BPLD-C-10/3/BJ

Single-section dual-relief manifold

Rated Pressure (bar)	280
Max. Flow(L/min)	80

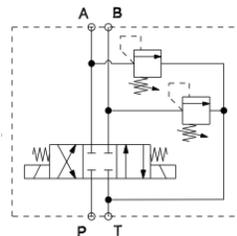
Features

- Compact construction
- Fast-response relief valve and solenoid valve
- Compact unit supplying low-pressure pilot oil
- Low power consumption

Contents

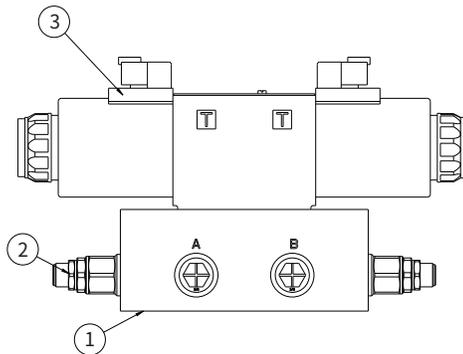
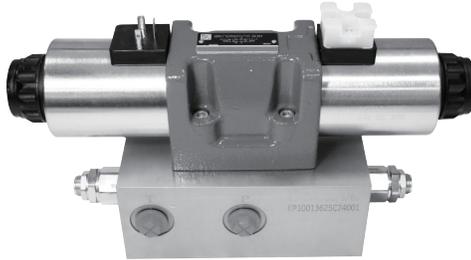
Description	02
Application	02
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Graphical symbol



Description

Model BPLD-C-06/1E/XG-3 pilot-pressure supply manifold delivers low-pressure control oil to the control unit for low-pressure hydraulic or electro-hydraulic systems. The manifold consists of valve block (1), 2-position 4-way solenoid valve (2), 3-position 4-way solenoid valve (3) and electro-proportional valve (4). Pressure oil enters at P, P1, P2, passes through solenoid valves (2)(3)(4), and supplies low control pressure to the circuit via ports A1-A6 or B1-B5. Electro-proportional valve (4) controls on/off flow at port A6.



Application



Excavator



Backhoe loader



Wheel loader



Crane

Technical Data

General-purpose

Weight	9.3g
Installation site	Any

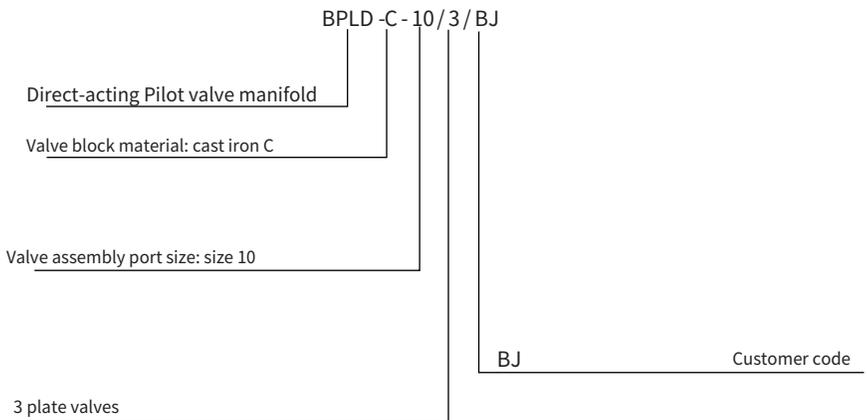
Hydraulic

Working pressure	280bar
Working flow	80L/min
Fluid medium	Mineral oil(HL、 HLP):DIN51524
Fluid mediumTemperature range	-40 to +80°C
Recommended viscosity range	7.4-420cSt
Fluid cleanliness	Max. contamination level ISO 4406 19/17/14

Electrical

Rated-voltage solenoid valve	24V DC
Protection class (to DIN 40050)	IP67
Solenoid rated power	30W
Solenoid-valve connection plug	Deutsch DT04-2P

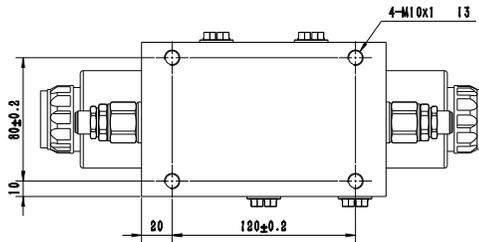
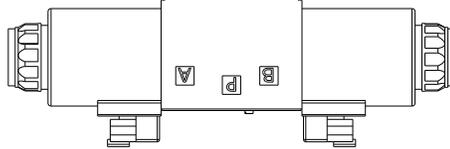
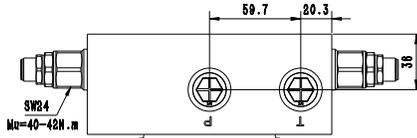
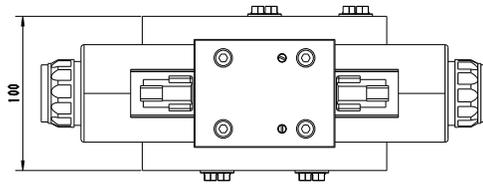
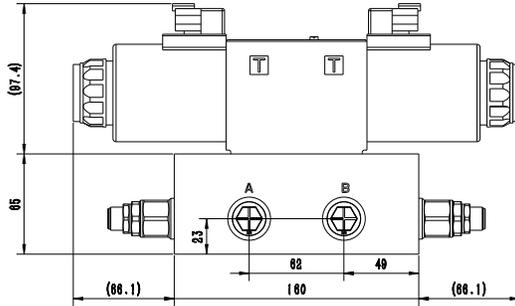
Ordering parameter



Outline Dimensions

- BPLD-C-10/3/BJ
- All port sizes=G3/8

(Unit : mm)





SOLINER

8.29

CMV-50R-DN10-F-G3/8

Anti-burst valve

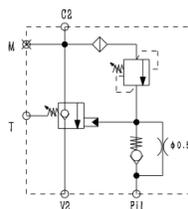
Port size	10
Rated Pressure (bar)	420
Max. Flow(L/min)	50 (see performance curve)

Features

- Compact construction and durable
- Quick response and impact resistance
- Rated to ISO8643
- Improve the security of the system

Contents

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Technical Specifications	03
Performance Curves	03
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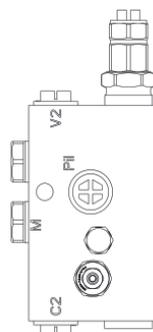


Description

Used on hydraulic excavators and mounted on hydraulic cylinders, the anti-burst valve prevents hose (line) rupture and is designed to meet ISO-8643

Working Principle

Flow (V2-C2) passes freely through the integral check valve to the cylinder; reverse flow (C2-V2) is blocked by a poppet held normally closed by spring force. Flow in the C2-V2 direction can be opened remotely by pilot pressure, which is independent of load. The valve incorporates a relief function that monitors C2 pressure and, under overload or shock conditions, opens to shift the poppet and unload the cylinder chamber connected to C2.



Model Description

CMV-50R-DN10-F-G3/8			
Flow Rate	50		
50L/min			
Port size:	DN10	Seal material:	Connection type:
		NBR	N Pipe thread connection
		FKM	P
		PU	F
			G3/8

Materials

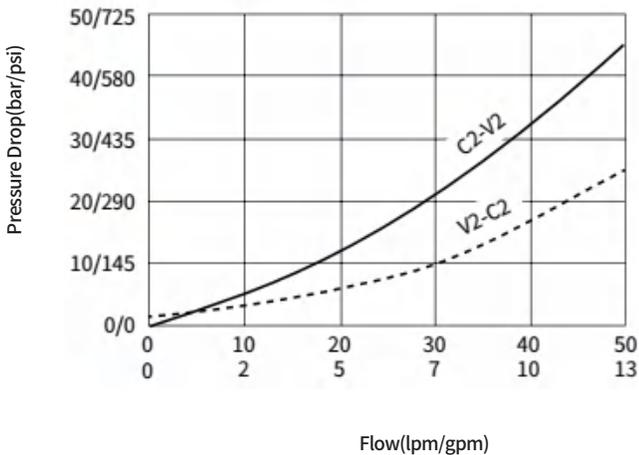
Valve body:

Steel, working surfaces hardened; zinc-plated exterior; NBR (Standard) , dimensions may vary —please consult factory.

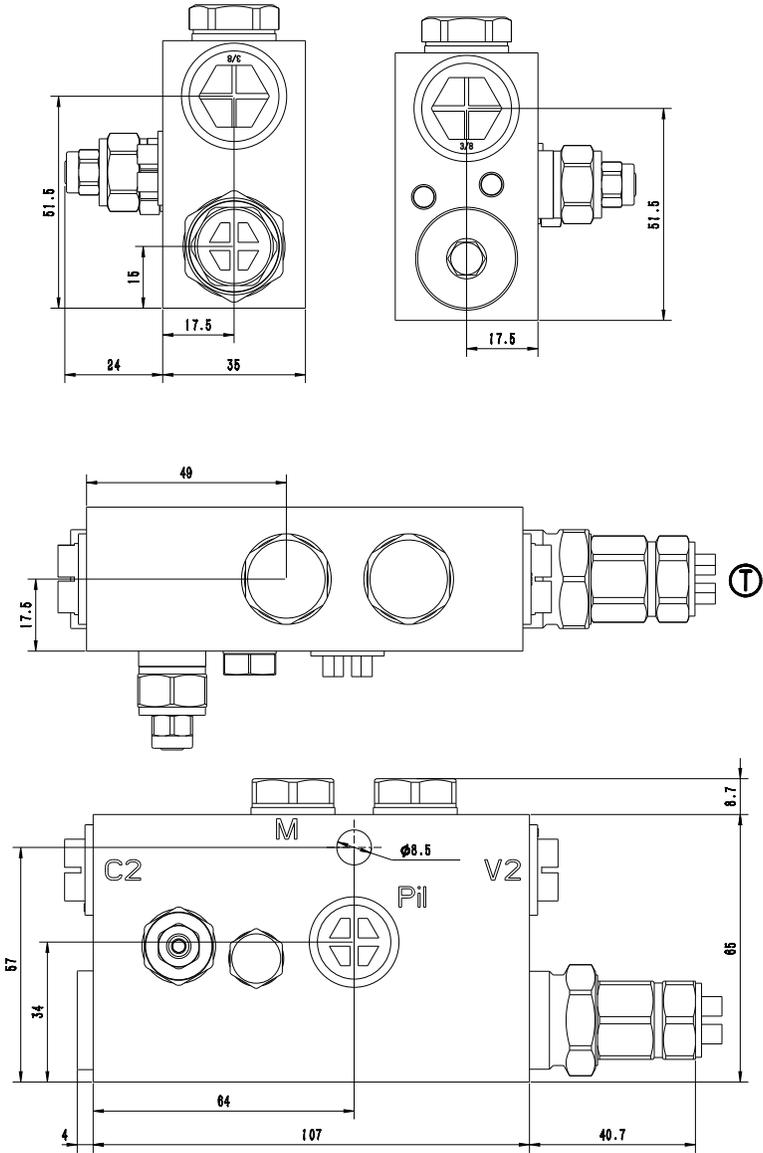
Technical Data

Model		CMV-50-DN10-F-G3/8
Max. Working Pressure		420bar(6000psi)
Max. Flow Rate		50L/min(13gpm)
Hydraulic Fluid		ISO VG46 / VG32
Fluid Cleanliness		NAS 1638 Class 8 or better
Operating Temperature		-20~90°C
Port Size	V2, C2	G3/8 (E-type seal)
	Pil, T port	G1/4 (E-type seal)
	M	G1/4(Combination seal Gasket seal)
Safety Valve Setting Parameters	Pressure adjustment range	150-420 bar
	Pressure per turn	236 bar/turn
	Factory default pressure	300±5 bar@5L/min
Pilot Setting Parameters	Pilot opening pressure range	3~15 bar
	Pilot pressure per turn	6.6 bar/turn
	Factory default opening pressure	6±0.3 bar

Performance Curve (insert type only)



Outline Dimensions





SOLINER

8.30

CMV-600

Flange-mounted anti-burst valve

Port size	32
Rated Pressure (bar)	460
Max. Flow(L/min)	200 (see performance curve)

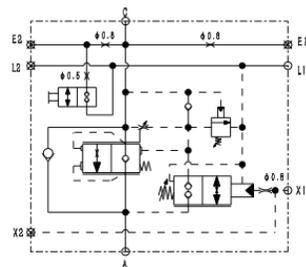
Features

- Compact construction and durable
- Quick response and impact resistance
- Rated to ISO8643
- Improve the security of the system

Contents

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Working Principle	02
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Function Symbol

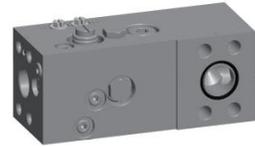


Description

Used on hydraulic excavators and mounted on hydraulic cylinders, the flange-mounted anti-burst valve prevents hose (line) rupture and is designed to meet ISO-8643.

Working Principle

Flow (A-C) passes freely through the integral check valve to the cylinder; reverse flow (C-A) is blocked by a poppet held normally closed by spring force. Flow in the C-A direction can be opened remotely by pilot pressure, which is independent of load. The valve incorporates a relief function that monitors port C pressure and, under overload or shock conditions, opens to shift the poppet and unload the cylinder chamber connected to port C.



Model Description

CMV-600-DN32-N-1"1/4SAE6000			
Flow Rate	600L/min	600	
Port size:	DN32		
Seal material:	NBR	N	
	FKM	P	
	PU	F	
Connection type:	Pipe thread connection		1"1/4SAE6000

Materials

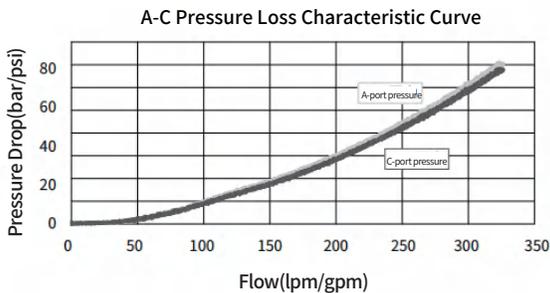
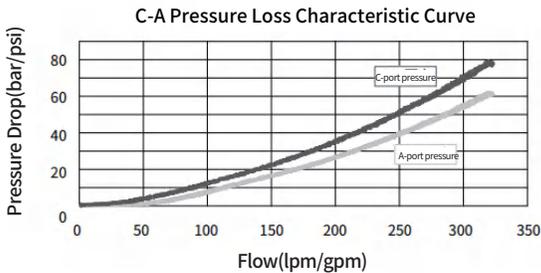
Valve body:

Steel, working surfaces hardened; zinc-plated exterior; NBR (Standard) ,dimensions may vary —please consult factory.

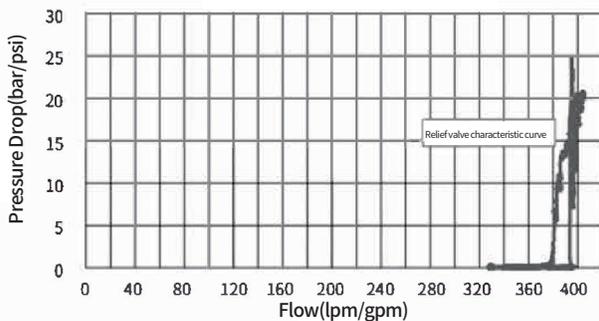
Technical Data

Model		CMV-600-DN32N-1"1/4SAE6000
Max. Working Pressure		460bar(6670psi)
Max. Flow Rate		600L/min(158gpm)
Hydraulic Fluid		ISO VG46 / VG32
Fluid Cleanliness		NAS 1638 Class 8 or better
Operating Temperature		-20~90°C
C-Port Leakage		≤ 2 cc/min at 80 % of set pressure
Port Size	A, C	1_1/4" — SAE 6000PSI
	X, L, E	G1/4" — ISO 1179-1
Safety Valve Settings	Pressure adjustment range	300~460 bar
	Pressure per turn	168 bar/turn
	Factory default pressure	390±5 bar@5L/min
Pilot Valve Settings	Pilot working pressure range	7~13 bar
	Pressure per turn	3 bar/turn
	Factory default opening pressure	7±0.3 bar

Performance Curve (insert type only)



Safety valve flow-pressure characteristic curve



Pilot pressure characteristic curve

