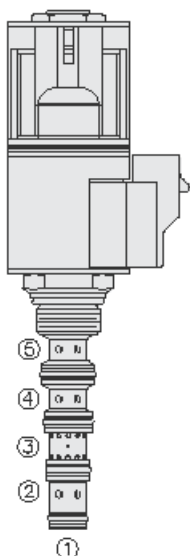




Overview



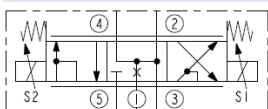
Description

This SP08-58DL valve is a direct-acting 3 position, 5 port proportional directional control. With port 1 as a load sense port, it is a screw in cartridge type for use with general purpose hydraulic fluids.

Features

- Low flow spool option for increased resolution
- Continuous-duty rated solenoid.
- Hardened spool and cage for long life.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Optional waterproof E-Coils rated up to IP69K.

Symbol



Ratings

Pressure Ratings

| | | |
|-----------------|--------------------|---|
| Pressure rating | 207 bar (3000 psi) | - Note: Per NFPA T2.6.1 R2-2000 using 99.9 assurance and 90% verification levels |
| Proof pressure | 345 bar (5000 psi) | - Note: SP08-58D |
| Burst pressure | 655 bar (9500 psi) | - Note: SP08-58D |

Flow Ratings

| | | |
|--------------------------|--------------------------------------|---|
| Minimum flow rating | 3.3 lpm (0.83 gpm) | - Note: S1 and S2 based on 10.3 bar [150 psid] with pressure compensator at maximum control current (see performance graphs) |
| Maximum internal leakage | 164 ml/min (10 in ³ /min) | - Note: At 207 bar (3000 psi), valve de-energized, from port 5 to ports 2 or 4 (ports 3 and 1 are blocked) |
| Hysteresis | 0.8 lpm (0.2 gpm) | - Note: Maximum, from 1.5 to 4.2 lpm (0.4 to 1.1 gpm) |

Temperature Ratings

| | | |
|-----------------------------|-------------------------------|--|
| Operating fluid temperature | -40 to 100 °C (-40 to 212 °F) | - Note: With buna N seals |
| | -26 to 204 °C (-15 to 400 °F) | - Note: With fluorocarbon seals |
| | -54 to 107 °C (-65 to 225 °F) | - Note: With polyurethane seals |
| Storage temperature | -40 to 70 °C (-40 to 160 °F) | |
| Ambient temperature | -40 to 70 °C (-40 to 160 °F) | |

Operating Parameters

| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per ISO 4406 |



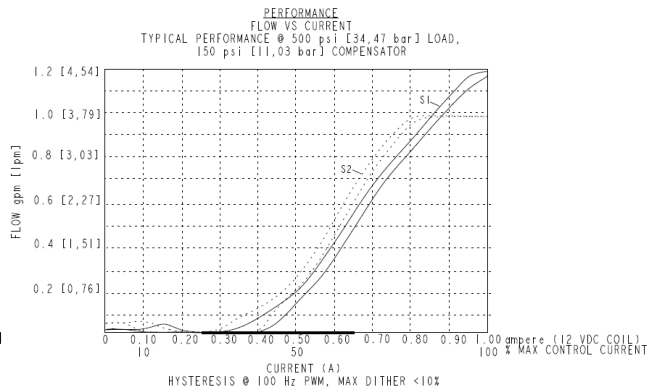
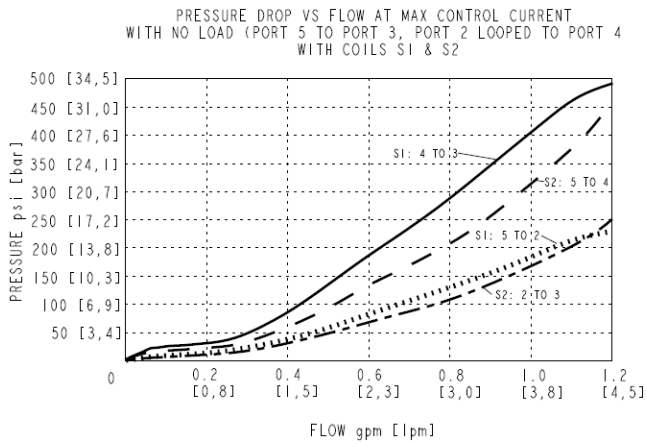
Properties

| | |
|------------------------------|---|
| Unit weight | 0.17 kg (0.38 lb) |
| Internal wetted surface area | 178 cm ² (27.6 in ²) |
| Corrosion protection | 960 hr salt spray per ASTM B117 |

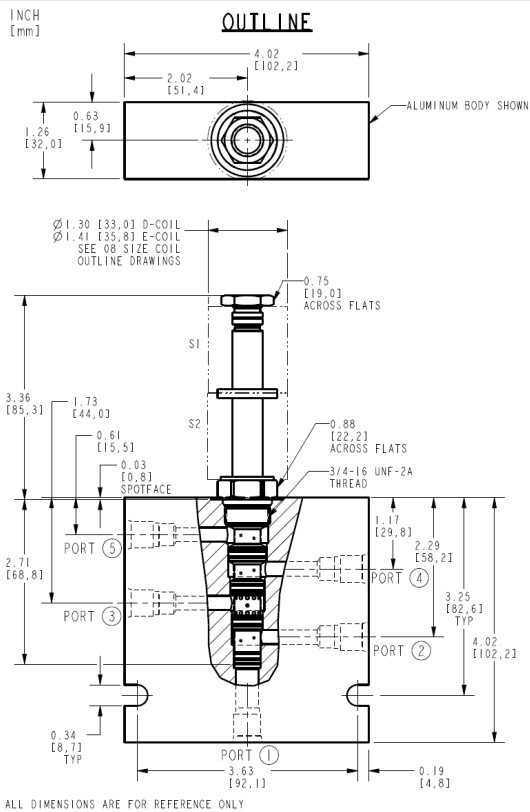
Electrical Parameters

| | | |
|-------------------------|--|-----------------------|
| Valve inductance | 124 mH | - Note: S1 |
| | 97 mH | - Note: S2 |
| Threshold current | See performance graphs - Note: D-coil 12 Vdc | |
| Maximum control current | 1.0 A | - Note: D-coil 12 Vdc |
| Dither PWM frequency | 90 to 110 Hz | |

Performance



Dimensions





Installation Specifications

| | |
|-------------------------------|---|
| Cavity | VC08-5 |
| Cartridge installation torque | 33.9 to 40.7 N-m (25 to 30 ft-lb) |
| Maximum allowable torque | 54.2 N-m (40 ft-lb) - Note: Aluminum |
| Coil nut torque | 5.4 to 6.8 N-m (4 to 5 ft-lb) |
| Orientation restriction | None |

Accessories

| | | |
|----------|--------------|--------------------------------|
| Seal kit | SK08-5X-MMMM | - Note: X = seal option |
|----------|--------------|--------------------------------|

Order Code

ORDERING INFORMATION

SP08-58DL-X-X-XXXX

BASE MODEL
NUMBER

LOW FLOW

PORTING

CARTRIDGE ONLY - 0

SEAL OPTIONS

BUNA N - N
FLUOROCARBON - V
POLYURETHANE - P

COIL VOLTAGE

(FOR D-COIL SPACER) LESS COIL - 00
(FOR E-COIL SPACER) LESS COIL - 00E
12 VDC COIL - 12
24 VDC COIL - 24

COIL TERMINATIONS

E-COIL OPTIONS:
METRI-PACK CONNECTOR - EY
DEUTSCH CONNECTOR - ER

D-COIL OPTIONS:
(2) LEADWIRES 18"
STANDARD LENGTH - DL
DUAL SPADES SAE J858a - DS
DIN 43650 - DG

Model Options

SP08-58DL-H-J-L

H Line Body

| CODE | DESCRIPTION |
|------|----------------|
| 0 | No Body |
| 6T | Aluminum SAE 6 |

J Seal

| CODE | DESCRIPTION |
|------|--------------|
| N | Buna-N |
| V | Fluorocarbon |
| P | Polyurethane |

L Coil

| CODE | DESCRIPTION |
|------|---------------------------------|
| 0 | No Coil, D-Coil Spacer |
| 0E | No Coil, E-Coil Spacer |
| 10DL | 10 VDC, D-Coil, Dual Lead Wires |



| CODE | DESCRIPTION |
|---------|--|
| 10DS | 10 VDC, D-Coil, Dual Spade |
| 10EL | 10 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| 10EL/36 | 10 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 10ER | 10 VDC, E-Coil, Deutsch |
| 12DG | 12 VDC, D-Coil, DIN 43650 |
| 12DL | 12 VDC, D-Coil, Dual Lead Wires, 18 inches long |
| 12DL/36 | 12 VDC, D-Coil, Dual Lead Wires, 36 inches long |
| 12DL/W | 12 VDC, D-Coil, Dual Lead Wires with Weatherpak |
| 12DR | 12 VDC, D-Coil, Deutsch |
| 12DS | 12 VDC, D-Coil, Dual Spade |
| 12EG | 12 VDC, E-Coil, DIN 43650 |
| 12EJ | 12 VDC, E-Coil, AMP Jr. |
| 12EL | 12 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| 12EL/36 | 12 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 12ER | 12 VDC, E-Coil, Deutsch |
| 12EY | 12 VDC, E-Coil, Metri-Pack 150 |
| 20DG | 20 VDC, D-Coil, DIN 43650 |
| 20DS | 20 VDC, D-Coil, Dual Spade |
| 20ER | 20 VDC, E-Coil, Deutsch |
| 24AG | 24 VDC, D-Coil, DIN 43650 |
| 24AP | 24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires |
| 24DG | 24 VDC, D-Coil, DIN 43650 |
| 24DL | 24 VDC, D-Coil, Dual Lead Wires, 18 inches long |
| 24DL/36 | 24 VDC, D-Coil, Dual Lead Wires, 36 inches long |
| 24DL/W | 24 VDC, D-Coil, Dual Lead Wires with Weatherpak |
| 24DR | 24 VDC, D-Coil, Deutsch |
| 24DS | 24 VDC, D-Coil, Dual Spade |
| 24EG | 24 VDC, E-Coil, DIN 43650 |
| 24EJ | 24 VDC, E-Coil, AMP Jr. |
| 24ER | 24 VDC, E-Coil, Deutsch |
| 24EY | 24 VDC, E-Coil, Metri-Pack 150 |
| 36DG | 36 VDC, D-Coil, DIN 43650 |
| 36DS | 36 VDC, D-Coil, Dual Spade |