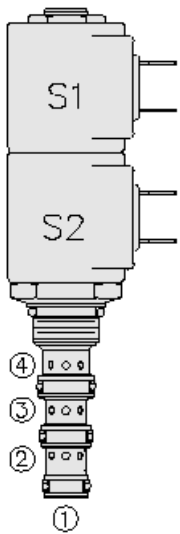




Overview



Description

A solenoid operated, direct acting, 3 position, 4-way, motor spool,proportional directional control. It is a screw-in hydraulic cartridge valve for use with general purpose hydraulic fluids. Manual override feature is available as an option.

Operation

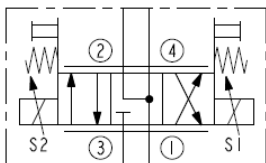
When de-energized,the sp08-47dnx blocks flow at port 3, while allowing flow from port 2 to port 1 and port 4 to port 1. When coil S1 is energized, flow is allowed from port 3 to port 4, and from port 2 to port 1. When coil S2 is energized, flow is allowed from port 3 to port 2, and from port 4 to port 1.

NOTE: While port 1 may be fully pressurized, it is not intended for use as the valve's inlet.

Features

- Extra low flow option
- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Industry-common cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating 241 bar (3500 psi)

Flow Ratings

Flow rating See performance graphs
 Maximum internal leakage 164 ml/min (10 in³/min) - **Note:** Port 3 to 2 or 3 to 4 each port, in neutral at 207 bar (3000 psi) inlet pressure
 Hysteresis Less than 1 lpm (0.25 gpm) - **Note:** From threshold to max control current

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 158 °F)
 Ambient temperature -40 to 70 °C (-40 to 158 °F)

Other Ratings

Corrosion protection 960 hr salt spray per ASTM B117

Operating parameters

Fluids Mineral based or synthetic hydraulic fluid with lubricating properties.
 Fluid viscosity range 7.4 to 420 cSt



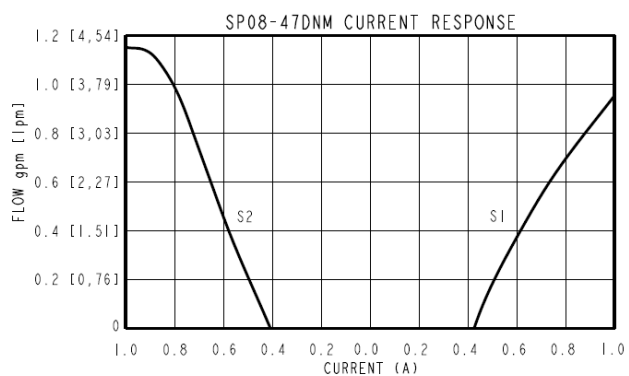
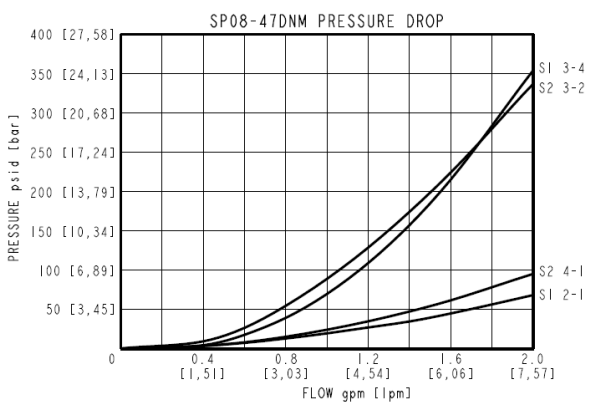
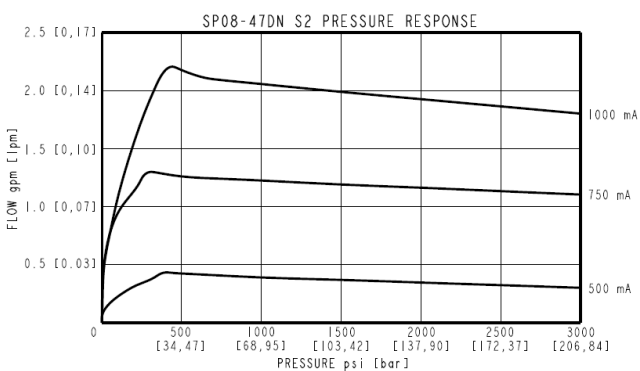
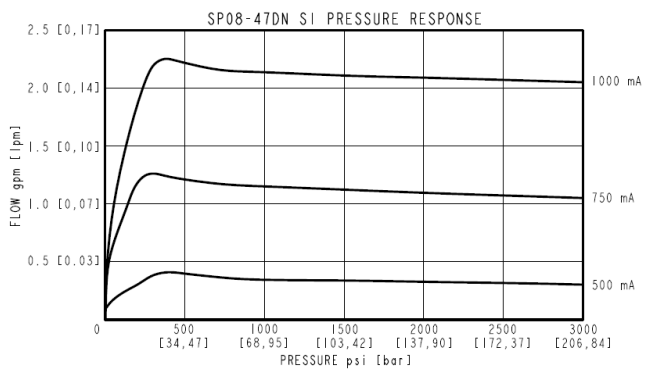
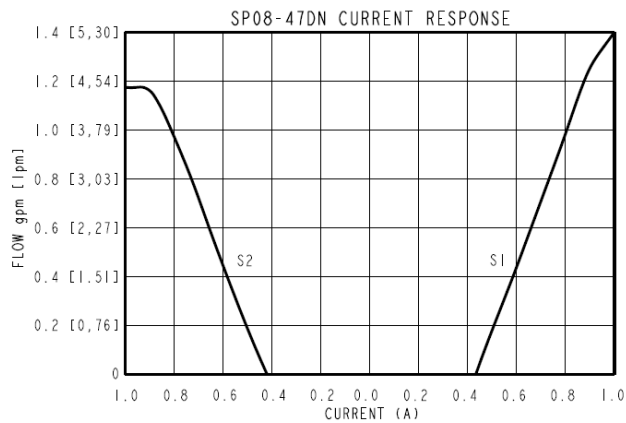
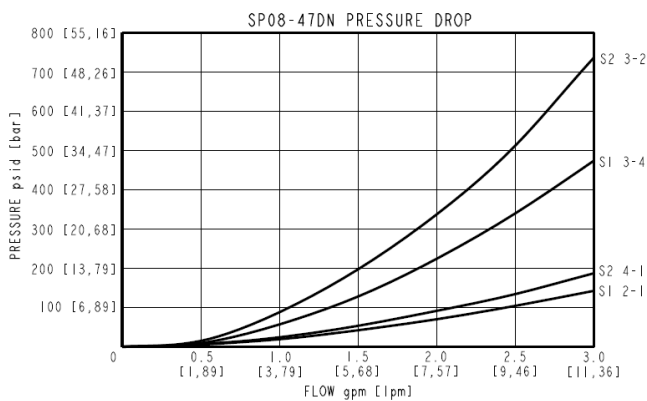
Properties

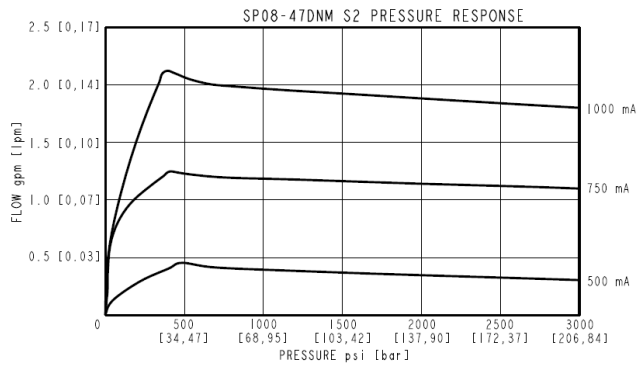
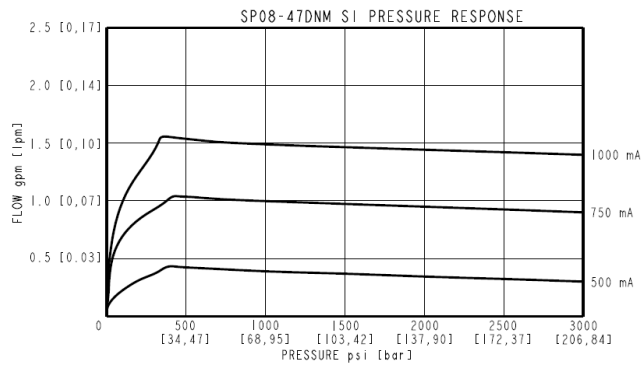
Maximum operating contamination 20/18/14 per ISO 4406 level
 Unit weight 0.16 kg (0.36 lb)
 Internal wetted surface area 159 cm² (24.7 in²)

Electrical Parameters

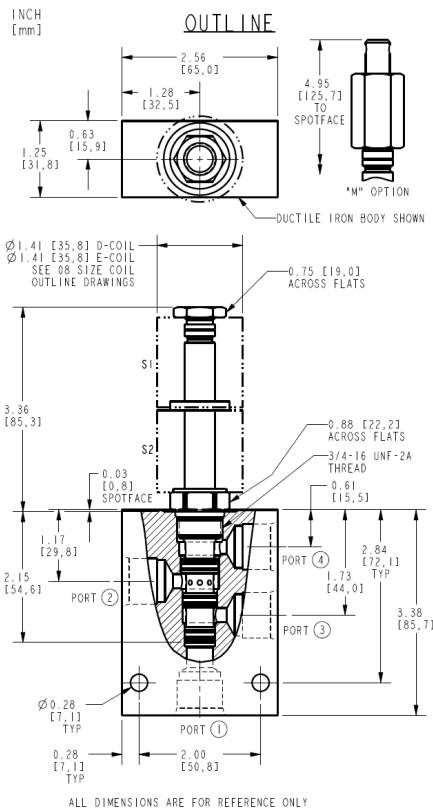
Maximum control current 1.0 A - **Note:** 12 V coil
 Threshold current See performance graphs
 Dither PWM frequency 90 to 110 Hz

Performance





Dimensions



Installation Specifications

Cavity	VC08-4
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Coil nut torque	5.4 to 6.8 N-m (4 to 5 ft-lb)
Orientation restriction	None

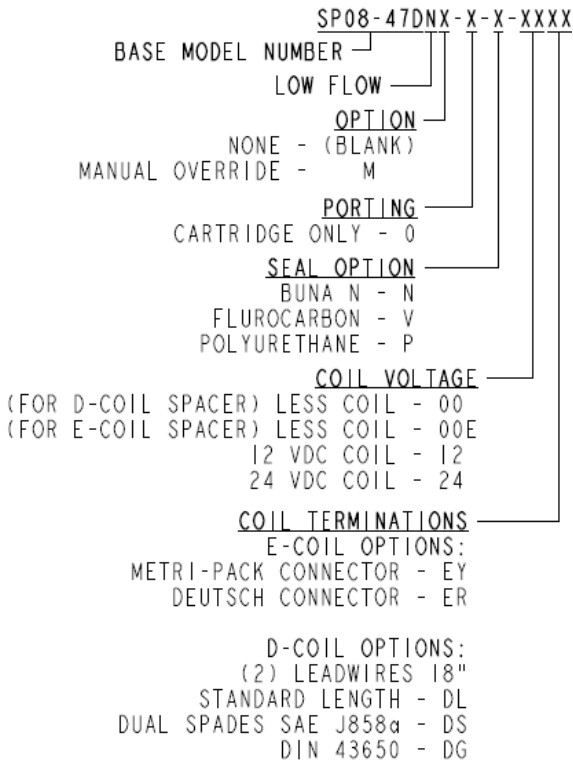
Accessories

Seal kit	SK08-4X-MMM	- Note: X = Seal option
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Order Code



ORDERING INFORMATION



Model Options

SP08-47DE-H-J-L

E Manual Override

CODE	DESCRIPTION
BLANK	NONE
M	Momentary Push/Pull Override, Red Knurled Knob

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
6TD	Ductile Iron SAE 6
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

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
10DS	10 VDC, D-Coil, Dual Spade
10EL	10 VDC, E-Coil, Dual Lead Wires, 18 inches long



CODE	DESCRIPTION
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