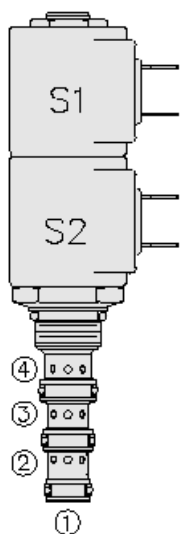
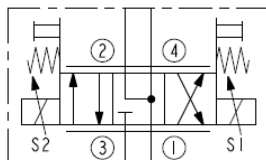




## Overview



### Symbol



### 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.

## Ratings

### Pressure Ratings

Pressure rating 241 bar (3500 psi)

### Flow Ratings

Flow rating See performance graphs  
Maximum internal leakage 164 ml/min (10 in<sup>3</sup>/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



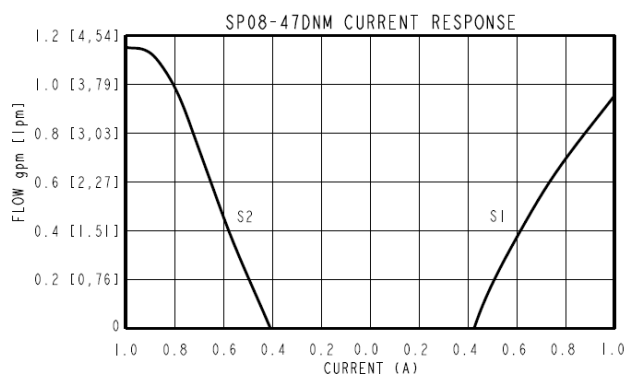
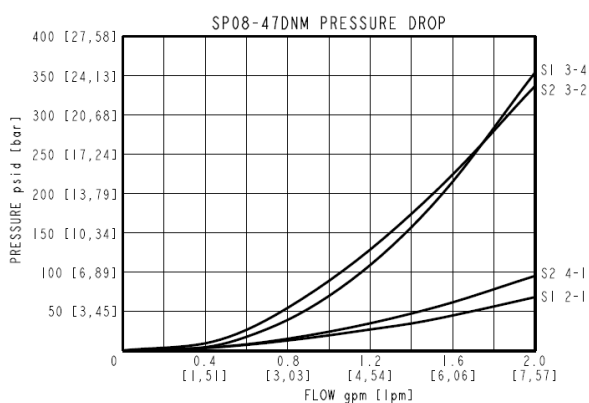
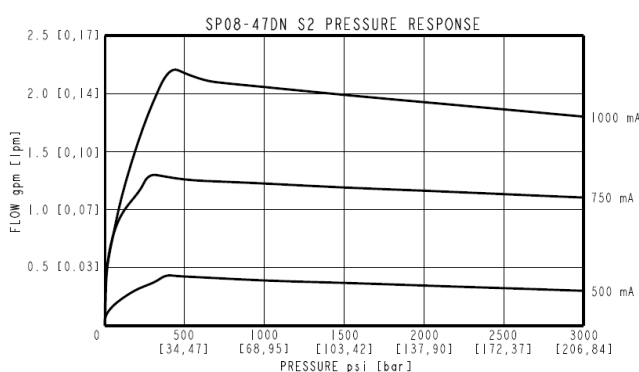
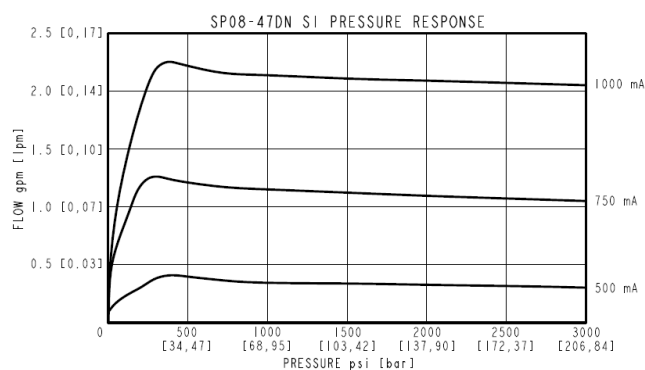
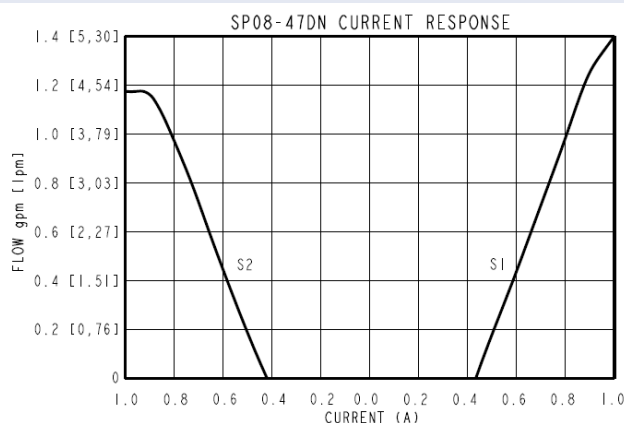
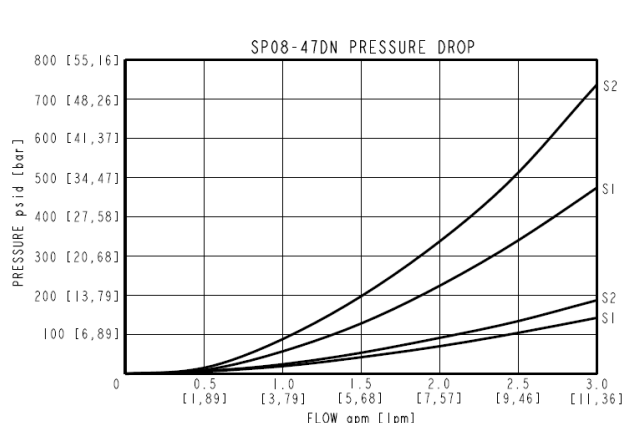
## Properties

Maximum operating contamination 20/18/14 per ISO 4406 level  
Unit weight 0.16 kg (0.36 lb)  
Internal wetted surface area 159 cm<sup>2</sup> (24.7 in<sup>2</sup>)

## Electrical Parameters

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

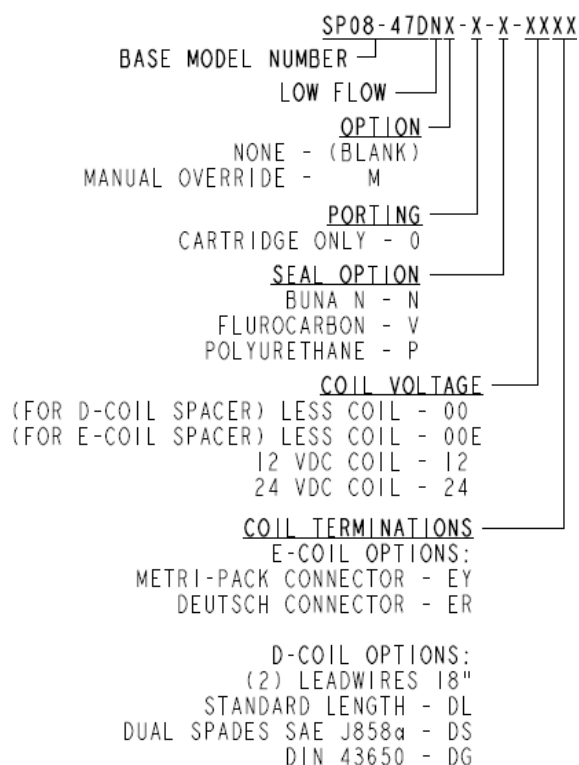
## Performance







## 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