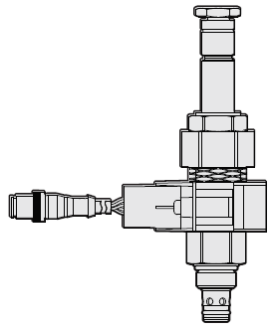




## Overview



### Description

A solenoid-operated, 2 port, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load holding or blocking valve in applications requiring low internal leakage.

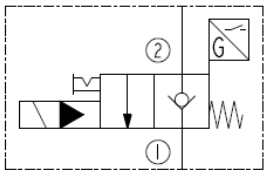
### Operation

When de-energized, the SV58-P20AX acts as a check valve, allowing flow to pass from port 1 to port 2, while blocking flow in the reverse direction. When energized, the poppet lifts to the port 2 to port 1 flow path. In this mode, flow from 1 to 2 is severely restricted.

### Features

- Integral position sensor indicates when valve is shifted.
- Continuous-duty rated coil.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Waterproof E-Coils rated up to IP69K.
- Unitized, molded coil design.
- 960 hour salt-spray rated solenoid tubes and coils.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	345 bar (5000 psi)
Proof pressure	483 bar (7000 psi)
Burst pressure	634 bar (9200 psi)

### Flow Ratings

Flow rating	22.7 lpm (6 gpm)
Maximum internal leakage	5 drops/min - <b>Note:</b> With 345 bar (5000 psi) 0.3 lpm (0.08 gpm) - <b>Note:</b> Typical flow (leakage) in transition at 207 bar (3000 psi). (see "Flow vs % Valve Shift" graph for flow in transition from valve close to valve open).

### Other Ratings

Minimum pull-in voltage	10.2 Vdc - <b>Note:</b> 12 Vdc coil
Response	70 ms - <b>Note:</b> Pull-in. Response times measured per NFPA/T3.5.30-2008 *Inlet pressure at port 2 is 345 bar (5000 psi) *Valve oriented vertically (2-1) and purged of air 104 ms - <b>Note:</b> Drop-out. Response times measured per NFPA/T3.5.30-2008 *Inlet pressure at port 2 is 345 bar (5000 psi) *Valve oriented vertically and purged of air

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals *See Position sensor operating temperature*
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals *See Position sensor operating temperature*
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	
Position sensor operating temperature	-40 to 110 °C (-40 to 230 °F)	- <b>Note:</b> Sensor element operating temperature limits the operating temperature of the entire assembly

## Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406



## Position Sensor Specifications

### Electrical Parameters

Supply voltage	9 to 32 Vdc	- <b>Note:</b> Vcc
Output voltage with target present	Vcc	
Output clamp current	40 to 65 mA	- <b>Note:</b> For Vcc up to 32 Vdc

### Ratings

ESD	±8 kV	- <b>Note:</b> Air discharge
EMI	30 V/m	- <b>Note:</b> From 400 MHz to 2 GHz
IP rating	IP67	
Vibration	10 G	- <b>Note:</b> 10 to 2000 Hz sinusoidal
Mechanical shock	50 G	- <b>Note:</b> 11 ms, half-wave sinusoidal
Position sensor operating temperature	-40 to 110 °C (-40 to 230 °F)	- <b>Note:</b> Sensor element operating temperature limits the operating temperature of the entire assembly

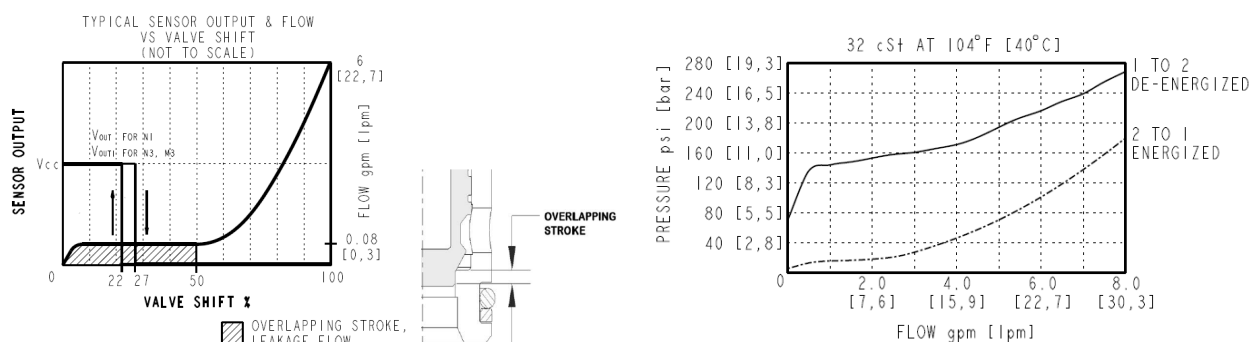
### Properties

Connector	Deutsch DT04-4P	- <b>Note:</b> Option N3 (dual output)
	M12	- <b>Note:</b> Option M3 (dual output)

## Properties

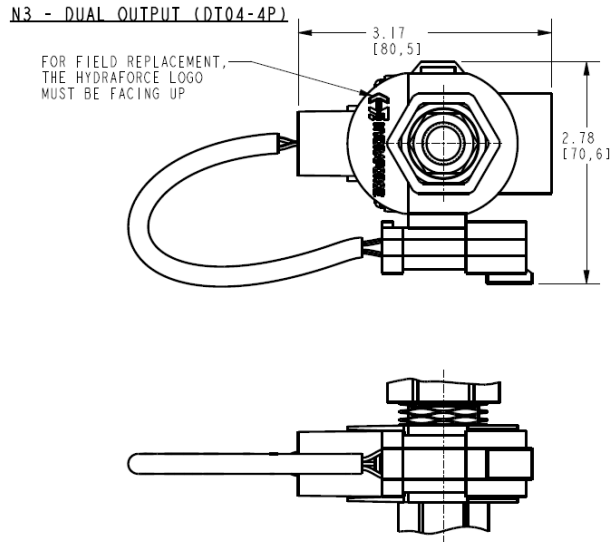
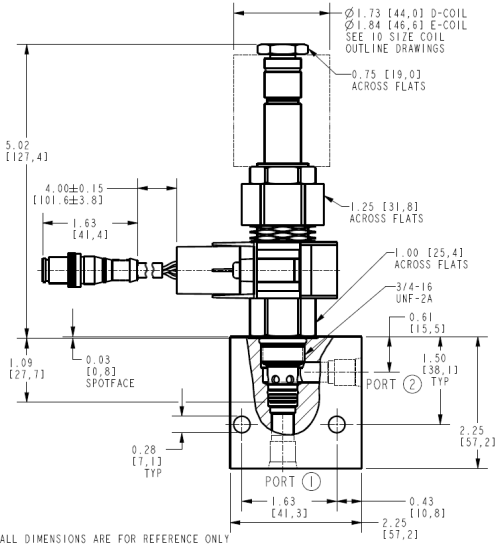
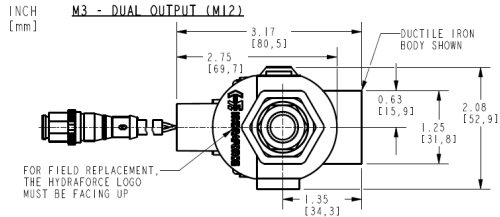
Unit weight	0.48 kg (1.05 lb)	- <b>Note:</b> SV58-P20A WITH M12 CONNECTOR
Internal wetted surface area	207 cm <sup>2</sup> (32.1 in <sup>2</sup> )	

## Performance



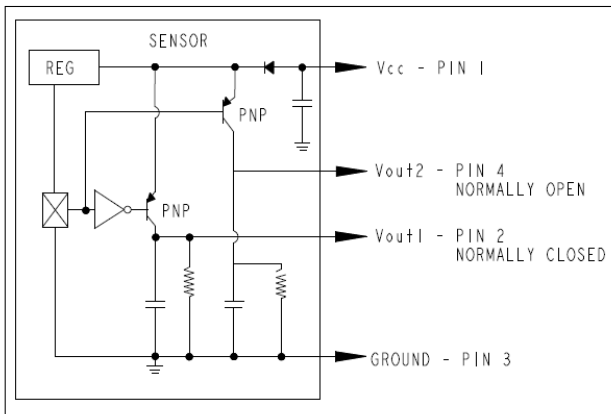


Dimensions

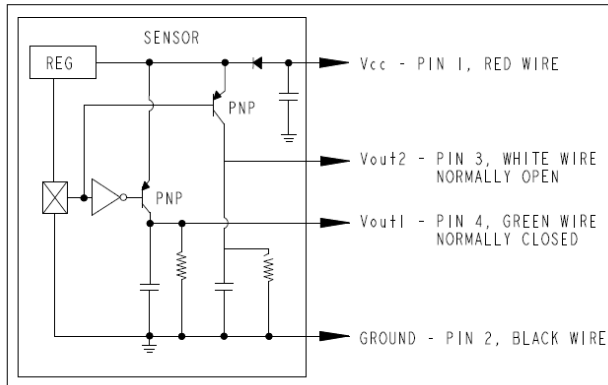


Wiring Diagrams

M3 SENSOR WIRING DIAGRAM



N3 SENSOR WIRING DIAGRAM



Installation Specifications

Cavity	VC08-2
Cartridge installation torque	52.9 to 55.6 N-m (39 to 41 ft-lb)
Coil nut torque	6.8 to 9.5 N-m (5 to 7 ft-lb)
Orientation restriction	None

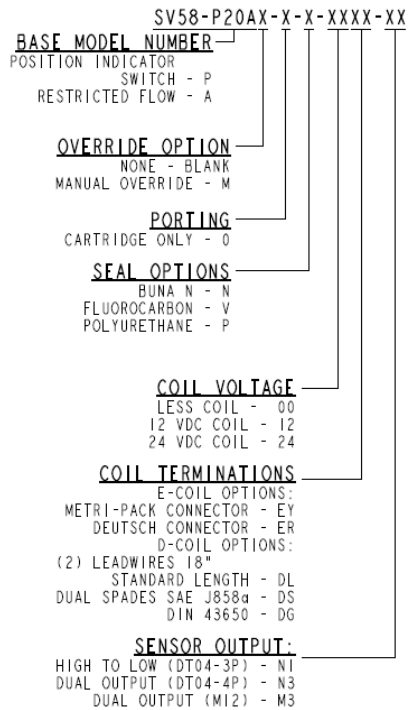
Accessories

Seal kit	SK08-2X-T	- Note: X = Seal option
Housings		
Coils		

Order Code



## ORDERING INFORMATION



POSITION	CODE	DESCRIPTION
		SV58-P20AE-H-J-L-M
E		Manual Override
E	BLANK	NONE
E	M	Two Position Override, Red Knurled Knob
H		Line Body
H	0	No Body
H	4T	Aluminum SAE 4
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	2B	Aluminum BSPP 1/4" (2)
H	3B	Aluminum BSPP 3/8" (3)
H	3BD	Ductile Iron BSPP 3/8" (3)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
L		Coil
L	0	No Coil
L	10DG	10 VDC, D-Coil, DIN 43650
L	10DL	10 VDC, D-Coil, Dual Lead Wires
L	10DR/D	10 VDC, D-Coil, Deutsch with Diode
L	10DS	10 VDC, D-Coil, Dual Spade
L	10EL	10 VDC, E-Coil, Dual Lead Wires



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



POSITION	CODE	DESCRIPTION
L	36DS	36 VDC, D-Coil, Dual Spade
L	115AG	115 VAC, D-Coil, DIN 43650
L	115AP	115 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires
L	230AG	230 VAC, D-Coil, DIN 43650
L	230AP	230 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires
M		Position Sensor Termination
M	BLANK	No Position Sensor
M	M3	Neutral Sense, M12-4P, Dual Output NC/NO
M	N3	Neutral Sense, DT04-4P, Dual Output NC/NO