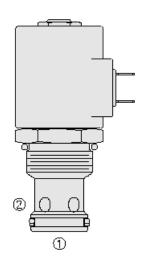


Overview



Description

A solenoid-operated, 2 port, normally closed, poppet-type, proportional, screw-in hydraulic cartridge valve, designed for low leakage blocking and load-holding applications.

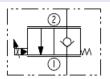
Operation

OPERATION: When de-energized, the valve acts as a check, allowing flow from port 1 to port 2, while blocking flow from port 2 to port 1. WHen energized, the poppet lifts to open the port 2 to port 1 flow path. In this mode, flow from port 1 to port 2 is severely restricted.

Features

- Continuous-duty rated coil.
- Efficient wet-armature construction.
- Manual override options.
- · Optional waterproof E-Coils rated up to IP69K.
- Industry common cavity.

Symbol



Ratings

	P	r	е	s	s	u	r	е	Ratings
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Pressure rating 250 bar (3625 psi) - Note: Per NFPA T2.6.1 R2-2000 using 99.9 assurance

and 90% verification levels

Proof pressure 344 bar (5000 psi)
Burst pressure 779 bar (11300 psi)

Flow Ratings

Flow rating 227.4 lpm (60 gpm) - **Note:** Based on 34.4 bar (500 psi) pressure drop (see

performance graphs)

Maximum internal leakage 5 drops/min - **Note**: At rated pressure

Hysteresis 5 % - Note: Maximum up to 60% of imax

10 % - Note: Maximum from 60% of imax up to imax

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 - Note: With polyurethane seals

Storage temperature -40 to 70 °C (-40 to 160 °F)

Ambient temperature -40 to 70 °C (-40 to 160 °F)

Ambient temperature -40 to 70 °C (-40 to 160 °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

Maximum operating contamination 20/18/14 per ISO 4406

level



Properties

Unit weight 0.345 kg (0.76 lb) - Note: SP16-20J 0.376 kg (0.83 lb) - Note: SP16-20Y

0.38 kg (0.84 lb) - **Note:** SP16-20M/T

Internal wetted surface area 221 cm² (34.2 in²)

Electrical Parameters

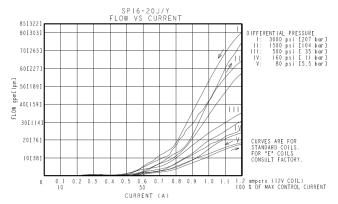
Valve inductance 166 mH

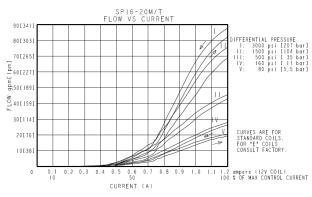
Maximum control current 1.2 A - Note: D-coil 12 Vdc

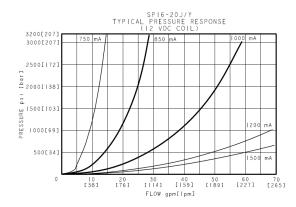
Threshhold current 0.4 A - Note: D-coil 12 Vdc (see performance graphs)

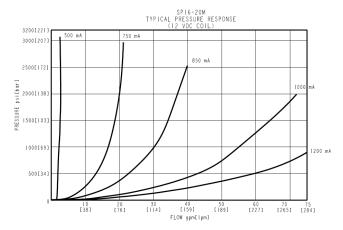
Dither PWM frequency 100 to 400 Hz

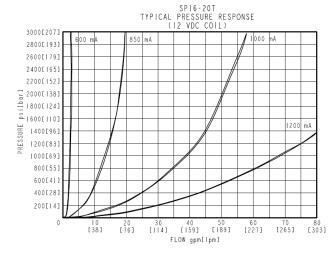
Performance





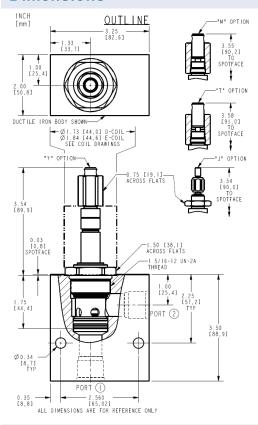








Dimensions



Installation Specifications

Cavity VC16-2

Cartridge installation torque 62.4 to 73.2 N-m (46 to 54 ft-lb)

Coil nut torque 6.8 to 9.5 N-m (5 to 7 ft-lb)

Orientation restriction None

Accessories

Seal kit SK16-2X-T - Note: X = seal option



Order Code

ORDERING INFORMATION

