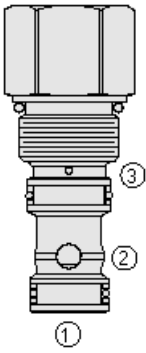




Overview



Description

The EP10-S38 is a screw-in, cartridge style hydraulic directional element.

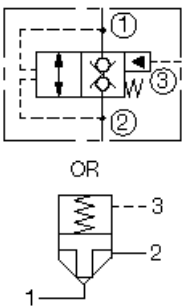
Operation

It is a spring biased poppet valve, which will block port 1 to port 2 or port 2 to port 1 until pressure at port 1 or port 2 exceeds the cumulative pressure at port 3 and bias spring, with no pressure at port 3 flow will be allowed from port 1 to port 2 or port 2 to port 1 once the bias spring force is overcome with pressure at port 1 or port 2. When the element is in closed state the ratio of areas port 1 and port 2 is 1:1 and port 1 or port 2 to port 3 is 1:2.

Features

- Multiple function/application potential.
- Low pressure drop.
- Industry-common cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating 345 bar (5000 psi)

Flow Ratings

Flow rating See performance graph
Maximum internal leakage 0.2 ml/min (0.012 in³/min) - **Note:** At 241 bar (3500 psi)

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)

Other Ratings

Corrosion protection 960 hr salt spray per ASTM b117 (gep10-s38)

Operating Parameters

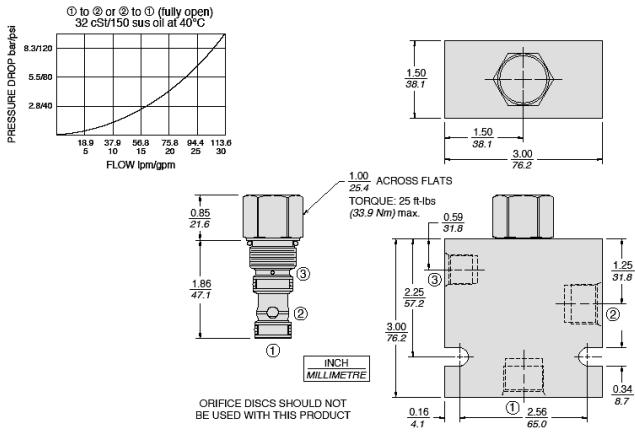
Fluids Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range 7.4 to 420 cSt
Maximum operating contamination 20/18/14 per ISO 4406 level

Properties

Unit weight 0.15 kg (0.32 lb)
Internal wetted surface area 116 cm² (18.0 in²)



Performance



Installation Specifications

Cavity	VC10-S3
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Orientation restriction	None

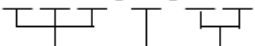
Accessories

Seal kit	SK10-S3X-MM	- Note: X = seal option
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Order Code

EP10-S38 -



Porting

- Cartridge Only 0
- SAE 8* 8T
- SAE 10* 10T
- SAE 12* 12T

*SAE 6 pilot port

Bias Spring

- 80 5.52 bar (80 psi)
- 160 11.0 bar (160 psi)

Seals

- N Buna N (Std.)
- V Fluorocarbon
- P Polyurethane (for pressures over 240 bar/3500 psi)

Model Options

EP10-S38-H-J-R

H Line Body

CODE	DESCRIPTION
0	No Body

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

R Spring

CODE	DESCRIPTION
80	80 psi Bias Spring
160	160 psi Bias Spring