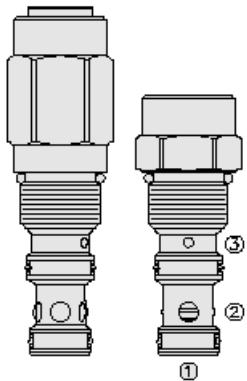




Overview



Description

The ep12-s35xx is a screw-in, cartridge style, pilot to close hydraulic directional element.

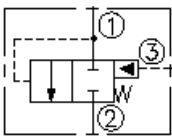
Operation

The valve is a spring-biased blocking valve which will shift to allow full flow from port 1 to 2 only when the pressure at port 1 exceeds the cumulative pressure of port 3, plus the bias spring pressure value.

Features

- Multiple function/application potential.
- Low pressure drop.
- Industry-common cavity.
- Manual override option available with 80 psi spring.

Symbol



Ratings

Pressure Ratings

Pressure rating 345 bar (5000 psi)

Flow Ratings

Flow rating See performance graph
 Maximum internal leakage 131 ml/min (8 in³/min) - **Note:** At 345 bar (5000 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
	-26 to 204 °C (-15 to 400 °F)	- Note: With high durometer fluorocarbon seals
Storage temperature	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

Operating Parameters

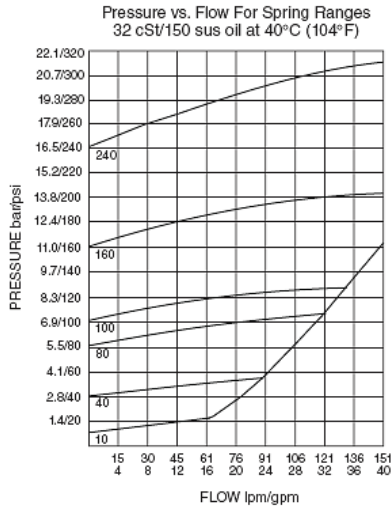
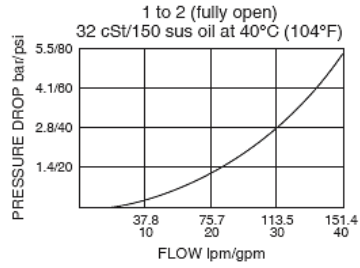
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties	
Fluid viscosity range	7.4 to 420 cSt	
Maximum operating contamination level	20/18/14 per ISO 4406	

Properties

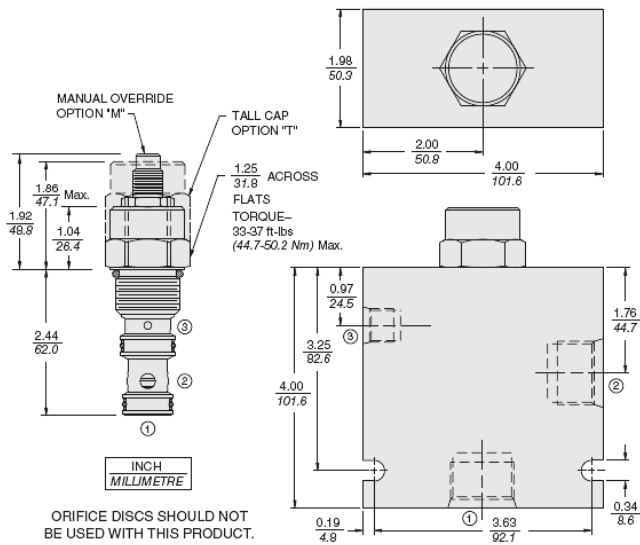
Unit weight	0.28 kg (0.61 lb)	- Note: EP12-S35
	0.44 kg (0.97 lb)	- Note: EP12-S35T
	0.31 kg (0.69 lb)	- Note: EP12-S35M
Internal wetted surface area	207 cm ² (32.15 in ²)	- Note: EP12-S35
	269 cm ² (41.63 in ²)	- Note: EP12-S35T
	190 cm ² (29.52 in ²)	- Note: EP12-S35M



Performance



Dimensions



Installation Specifications

Cavity	VC12-S3
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb)
Orientation restriction	None

Accessories

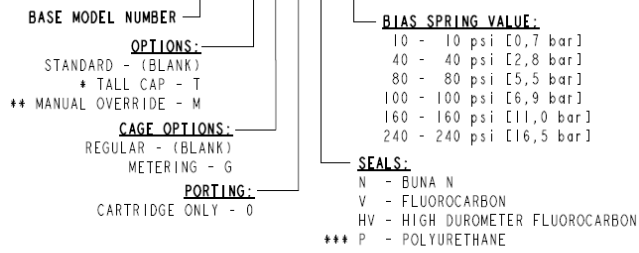
Seal kit	SK12-S3X-MM	- Note: X = seal option
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Order Code



ORDERING INFORMATION:

EP12-S35 X X-X-X-XXX



- * "T" TALL CAP REQUIRED FOR 160 AND 240 psi BIAS SPRINGS.
- ** "M" MANUAL OVERRIDE AVAILABLE WITH 80 psi SPRING ONLY.
- *** REQUIRED FOR PRESSURES OVER 3500 psi [241 bar].

Model Options

EP12-S35CDF-H-J-R

C Adaptor Option

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

D Cage Option

CODE	DESCRIPTION
BLANK	Standard Cage
G	Metering (staggered holes)

F Stroke Limiter

CODE	DESCRIPTION
BLANK	Standard
M	Stroke Limiter

H Line Body

CODE	DESCRIPTION
0	No Body
12T	Aluminum SAE 12
12TD	Ductile Iron SAE 12
6BD	Ductile Iron BSPP 3/4" (6)

J Seal

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

R Spring

CODE	DESCRIPTION
10	10 psi Bias Spring
40	40 psi Bias Spring
80	80 psi Bias Spring
100	100 psi Bias Spring



CODE	DESCRIPTION
160	160 psi Bias Spring
240	240 psi Bias Spring