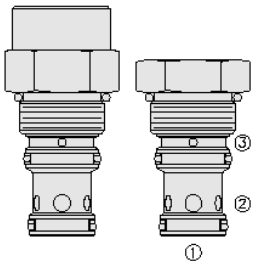




## Overview



### Description

The ep16-s35xxx is a screw-in, cartridge style, pilot to close hydraulic directional element.

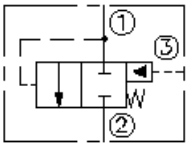
### Operation

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 available with 90, 110, 160, and 240 psi bias springs.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating 241 bar (3500 psi)

### Flow Ratings

Flow rating See performance graph  
Maximum internal leakage 164 ml/min (10 in<sup>3</sup>/min) - **Note:** At 207 bar (3000 psi)

### 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
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

## Operating Parameters

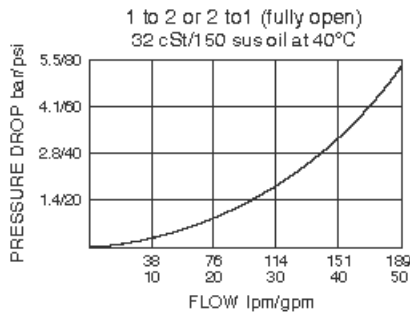
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

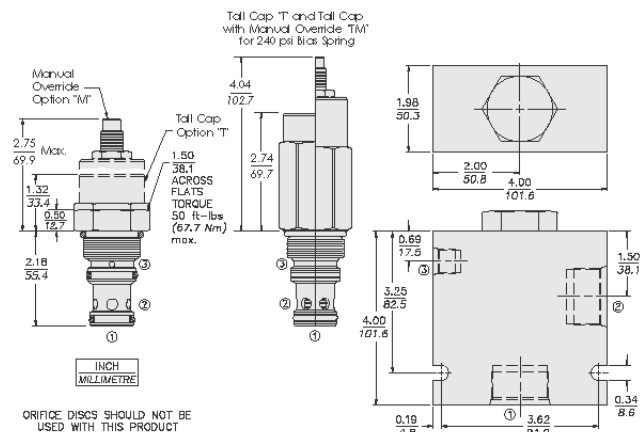
Unit weight	0.29 kg (0.63 lb)	- <b>Note:</b> Ep16-s35x-0-x-70
	0.41 kg (0.91 lb)	- <b>Note:</b> Ep16-s35tx-0-x-160
	0.72 kg (1.58 lb)	- <b>Note:</b> Ep16-s35tx-0-x-240
	0.57 kg (1.26 lb)	- <b>Note:</b> Ep16-s35tmx-0-x-160
	0.86 kg (1.90 lb)	- <b>Note:</b> Ep16-s35tmx-0-x-240
	0.62 kg (1.36 lb)	- <b>Note:</b> Ep16-s35tmcx-0-x-160
	0.91 kg (2.01 lb)	- <b>Note:</b> Ep16-s35tmcx-0-x-240
Internal wetted surface area	221 cm <sup>2</sup> (34.25 in <sup>2</sup> )	- <b>Note:</b> Ep16-s35x-0-x-70
	290 cm <sup>2</sup> (44.92 in <sup>2</sup> )	- <b>Note:</b> Ep16-s35tx-0-x-160
	372 cm <sup>2</sup> (57.59 in <sup>2</sup> )	- <b>Note:</b> Ep16-s35tx-0-x-240
	292 cm <sup>2</sup> (45.30 in <sup>2</sup> )	- <b>Note:</b> Ep16-s35tmx-0-x-160
	367 cm <sup>2</sup> (56.91 in <sup>2</sup> )	- <b>Note:</b> Ep16-s35tmx-0-x-240



## Performance



## Dimensions



## Installation Specifications

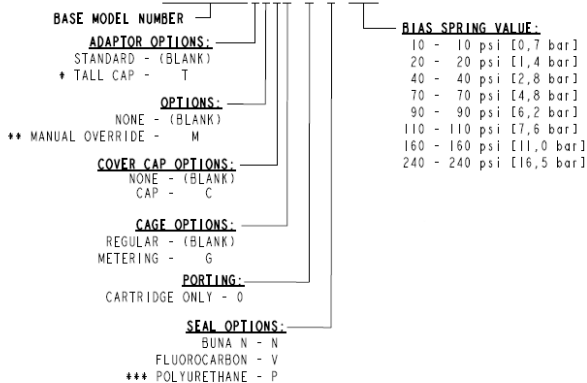
Cavity	VC16-S3
Cartridge installation torque	62.4 to 73.2 N-m (46 to 54 ft-lb)
Maximum allowable torque	136 N-m (100 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK16-S3X-MM	- Note: X = seal option
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## Order Code

### ORDERING INFORMATION: EP16-S35XXX-X-X-XXX



- \* "T" TALL CAP REQUIRED FOR 90, 110, 160 AND 240 psi BIAS SPRINGS.
- \*\* "M" MANUAL OVERRIDE AVAILABLE WITH 40, 90, 110, 160 AND 240 psi SPRINGS ONLY.
- \*\*\* REQUIRED FOR PRESSURES OVER 3500 psi [241 bar].

### Model Options

#### EP16-S35CDF-H-J-R

#### C Adaptor Option



CODE	DESCRIPTION
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BLANK	Standard Cap
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T	Tall Cap
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### D Cage Option

CODE	DESCRIPTION
------	-------------

BLANK	Standard Cage
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G	Metering (staggered holes)
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### F Stroke Limiter

CODE	DESCRIPTION
------	-------------

BLANK	Standard
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M	Stroke Limiter
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MC	Stroke Limiter with Cover Cap
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### H Line Body

CODE	DESCRIPTION
------	-------------

0	No Body
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16T	Aluminum SAE 16
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### J Seal

CODE	DESCRIPTION
------	-------------

N	Buna-N
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V	Fluorocarbon
---	--------------

P	Polyurethane
---	--------------

U	PPDI Urethane
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### R Spring

CODE	DESCRIPTION
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10	10 psi Bias Spring
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20	20 psi Bias Spring
----	--------------------

40	40 psi Bias Spring
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70	70 psi Bias Spring
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90	90 psi Bias Spring
----	--------------------

110	110 psi Bias Spring
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160	160 psi Bias Spring
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240	240 psi Bias Spring
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