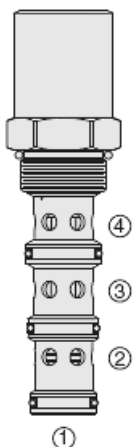




## Overview



### Description

EC56-42 is a screw-in, cartridge style, priority on demand pressure compensator valve with static load sense. Intended to provide priority flow in required amount, while allowing excessive flow to be used for auxiliary functions.

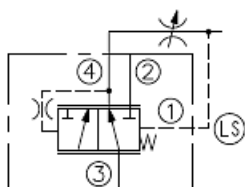
### Operation

With inlet flow at port 3, the EC56-42 will deliver required priority flow at port 4 regardless of load pressure. Excessive flow exits at port 2 and port 1 is the load sense port. All ports may be fully pressurized.

### Features

- High pressure.
- Priority-on-demand
- Static load-sense.
- Hardened parts for long life.
- Quiet, modulated response.
- Industry common cavity.
- Optional corrosion-resistant plating for 960-hour salt spray per ASTM B117.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	345 bar (5000 psi)
Proof pressure	690 bar (10000 psi)
Burst pressure	1275 bar (18500 psi)

### Flow Ratings

Inlet flow rating	115 lpm (30.0 gpm)	- <b>Note:</b> Maximum, with compensating spring 5.5 bar (80 psi)
	150 lpm (40.0 gpm)	- <b>Note:</b> Maximum, with compensating spring 10.3 bar (150 psi)
	189 lpm (50.0 gpm)	- <b>Note:</b> Maximum, with compensating spring 15.2 bar (220 psi)
	- <b>Note:</b> 80% of input flow when priority pressure exceeds bypass pressure. 50% of input flow when bypass pressure exceeds priority pressure	
Priority flow rating		

### 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
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °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	18/16/13 per ISO 4406



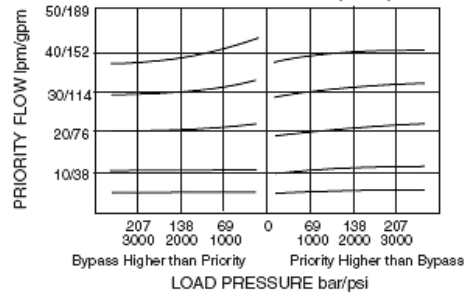
## Properties

Unit weight	0.67 kg (1.48 lb)
Internal wetted surface area	425 cm <sup>2</sup> (65.9 in <sup>2</sup> )

## Performance

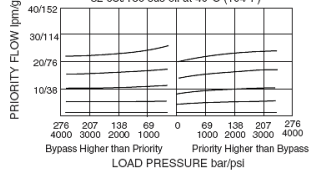
**Priority Flow vs. Load**

151 lpm (50 gpm) Inlet Flow; 220 Compensator Spring  
32 cSt/150 sus oil at 40°C (104°F)



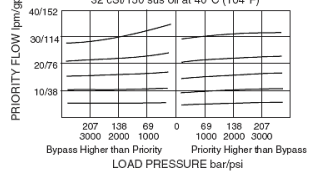
**Priority Flow vs. Load**

114 lpm (30 gpm) Inlet Flow; 80 Compensator Spring  
32 cSt/150 sus oil at 40°C (104°F)



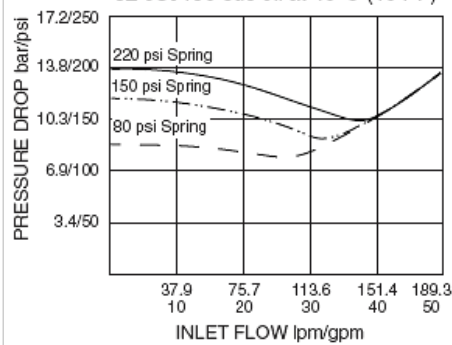
**Priority Flow vs. Load**

151 lpm (40 gpm) Inlet Flow; 150 Compensator Spring  
32 cSt/150 sus oil at 40°C (104°F)

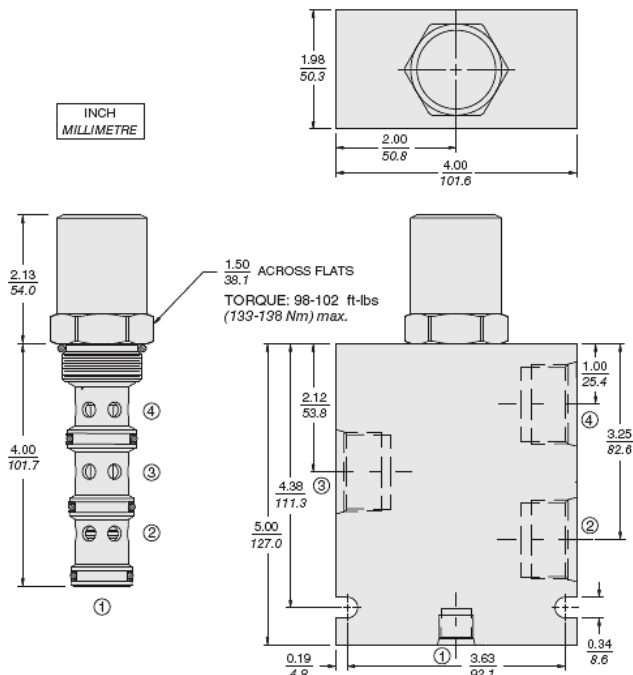


**Pressure Drop vs. Flow**

Port 3 to 2; Port 4 blocked  
32 cSt/150 sus oil at 40°C (104°F)



## Dimensions



## Installation Specifications

Cavity	VC16-4
Cartridge installation torque	133 to 138 N-m (98 to 102 ft-lb)
Orientation restriction	None



Accessories

Seal kit

SK16-4X-MMM - **Note:** X = seal option  
SK10-4U-0 - **Note:** Urethane

Order Code

