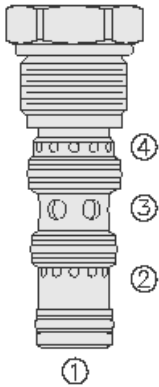




## Overview



### Description

The FD50-44 is a screw-in cartridge, spool type flow divider/combiner valve

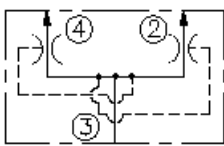
### Operation

The valve provides pressure compensated proportional division of inlet flow or combining of two return flows regardless of system operating pressure conditions. The valve is intended for use in mineral based or synthetic hydraulic fluids with lubricating properties

### Features

- Choice of flow ranges.
- Quiet, modulated response.
- Wide operating flow range.
- Accurate division or combination of flow.
- Optional corrosion-resistant plating.
- Industry-common cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	345 bar (5000 psi)
Burst pressure	1034 bar (15000 psi)

### Flow Ratings

Inlet flow rating	2.0 to 7.0 lpm (0.5 to 1.8 gpm)	- <b>Note:</b> Model code 99
	2.5 to 9.5 lpm (0.7 to 2.5 gpm)	- <b>Note:</b> Model code 11
	4 to 19 lpm (1.0 to 5.0 gpm)	- <b>Note:</b> Model code 22
	7.5 to 38 lpm (2.0 to 10.0 gpm)	- <b>Note:</b> Model code 44
Synchronizing flow	Approximately 10% of maximum inlet flow	
Flow accuracy	5 %	- <b>Note:</b> Of inlet flow at maximum flow rate
	10 %	- <b>Note:</b> Of inlet flow at minimum flow rate

### 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 90 °C (-40 to 194 °F)	

### Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (model number - gfd50-44)
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## Operating Parameters

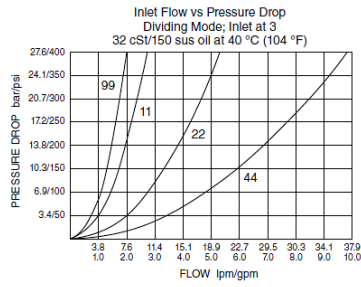
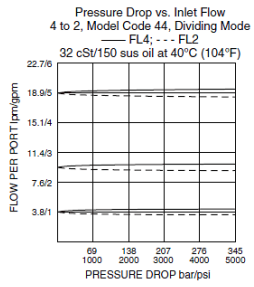
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

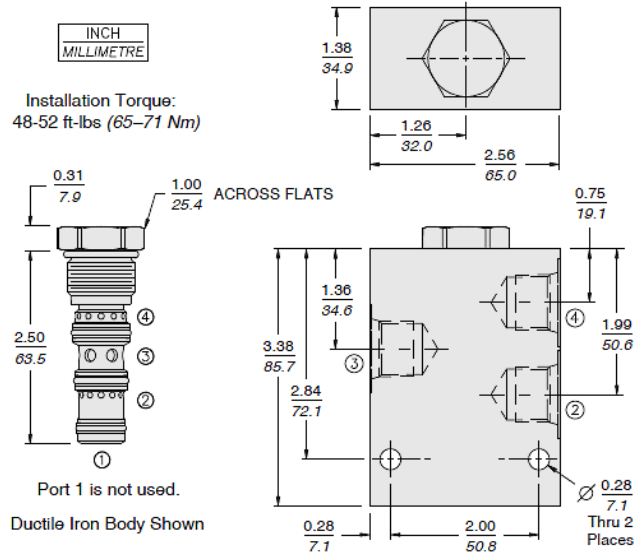
Unit weight	0.11 kg (0.25 lb)
Internal wetted surface area	164 cm <sup>2</sup> (25.4 in <sup>2</sup> )



## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 0.11 kg (0.25 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces.

**Special FD-Type Ported Body:** Ductile iron, required for operation over 207 bar (3000 psi). Aluminum bodies are available for lower pressure operation.

## Installation Specifications

Cavity	VC10-4
Cartridge installation torque	65 to 71 N-m (48 to 52 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-4X-MMM	- Note: X=seal option
	SK10-4U-000	- Note: Urethane
Housings		



**Order Code**

POSITION	CODE	DESCRIPTION
		FD50-44-H-J-N
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	6TD	Ductile Iron SAE 6
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
N		Flow Dividing/Combining
N	11	50/50 Rated at 2.5-9.5 lpm (0.7-2.5 gpm)
N	22	50/50 Rated at 4.0-19.0 lpm (1.0-5.0 gpm)
N	33	Not listed in outline
N	44	50/50 Rated at 7.5-38.0 lpm (2.0-10.0 gpm)
N	66	Not listed in outline
N	99	50/50 Rated at 2.0-7.0 lpm (0.5-1.8 gpm)

