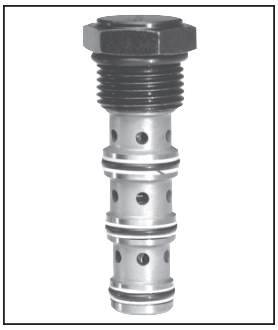
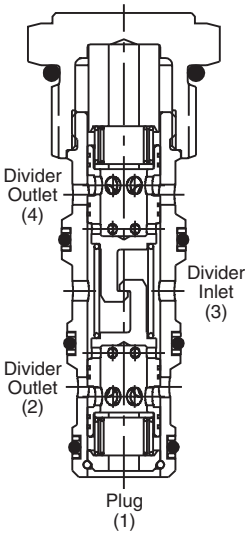
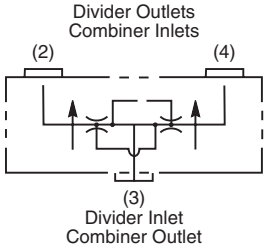
General Description

Flow Divider/Combiner Valve. FDC101 divides flow from a single source proportionally to two actuators. In the reverse mode, flow from two sources is combined into one flow. When dividing or combining flow to synchronize two cylinders, please consider that the flow accuracy is ±10%. For additional information see Technical Tips on pages FC1-FC4.







Features

- Hardened, precision ground parts for durability
- Cartridge design
- Ratios of 50-50, 60-40 and 66-33 available
- All external parts zinc plated

Specifications

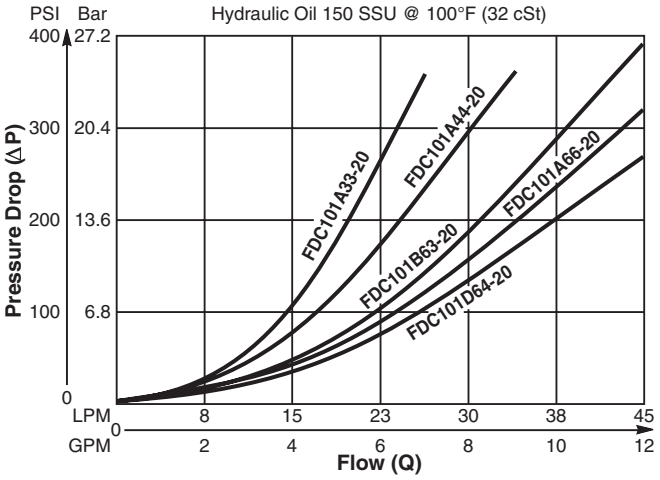
Maximum Flow	45 LPM (12 GPM) See ordering information
Maximum Inlet Pressure	245 Bar (3500 PSI)
Accuracy	±10%
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range (Ambient)	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Filtration	ISO Code 16/13, SAE Class 4 or better
Fluids	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Approx. Weight	.14 kg (0.3 lbs.)
Cavity	No. C10-4
Form Tool	Rougher NFT10-4R Finisher NFT10-4F

Note: When machining a manifold using the FDC101, use C10-4 cavity. Do not machine a port that directs flow to the nose of the cavity.

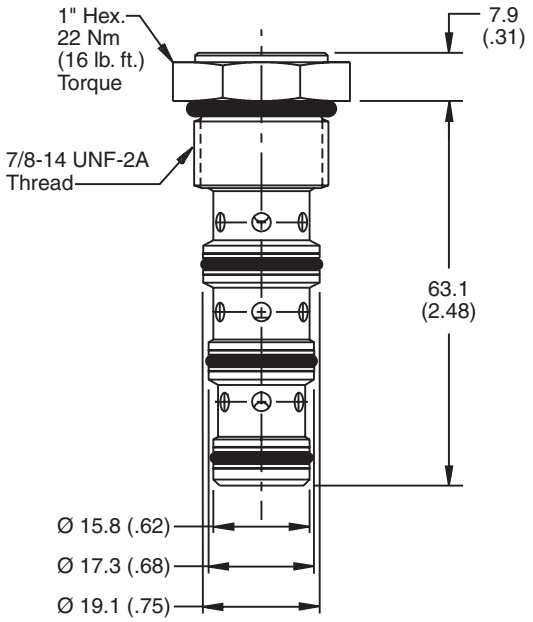
Performance Curve

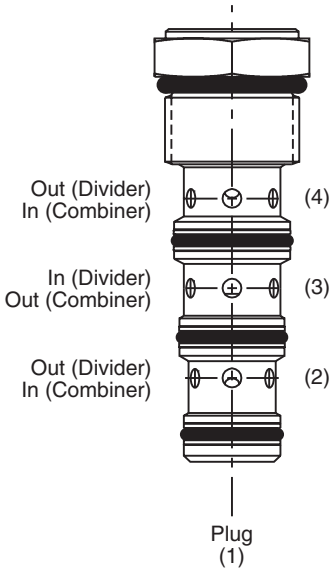
Flow vs. Pressure Drop

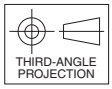
(Through cartridge only)



Dimensions Millimeters (Inches)







Ordering Information

FDC101			—		
10 Size Pressure Compensated Flow Control	Flow Division	Seals		Body Material	Port Size**

Code	Flow Division
A11	3.80 LPM (1 GPM) min. inlet 11.3 LPM (3 GPM) max. inlet 50% '4' Port and 50% '2' Port
A33	11.3 LPM (3 GPM) min. inlet 22.5 LPM (6 GPM) max. inlet 50% '4' Port and 50% '2' Port
A44	15.0 LPM (4 GPM) min. inlet 30.0 LPM (8 GPM) max. inlet 50% '4' Port and 50% '2' Port
A66	22.5 LPM (6 GPM) min. inlet 45.0 LPM (12 GPM) max. inlet 50% '4' Port and 50% '2' Port
B64	15.0 LPM (4 GPM) min. inlet 37.5 LPM (10 GPM) max. inlet 60% '4' Port and 40% '2' Port
D63	11.3 LPM (3 GPM) min. inlet 33.8 LPM (9 GPM) max. inlet 33% '4' Port and 66% '2' Port

Code	Seals / Kit. No.
Omit	Nitrile / (SK10-4N)
V	Fluorocarbon / (SK10-4V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
6P	3/8″ NPTF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8″ BSPG	(B10-4-6B)†

Add "A" for aluminum, omit for steel.
† Steel body only.

**The FDC101 cartridge has three ports. Due to its size, it requires a B10-4 series body. As a result, all cartridges in a body will be supplied with a plug located 180° from the cartridge cavity (port 1).

B10-4-6T body — 6HP*50-S
B10-4-8T body — 8HP*50-S
B10-4-4P body — 102 x 4
B10-4-6P body — 102 x 6
B10-4-8P body — 102 x 8

When machining a manifold using the FDC101, use C10-4 cavity. Do not machine a port that directs flow to the nose of the cavity.