

**Technical Information**

- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bore & Cavities
- TD** Technical Data

**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  $\pm 10\%$ . For additional information see Technical Tips on pages FC1-FC4.

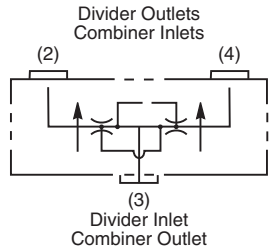
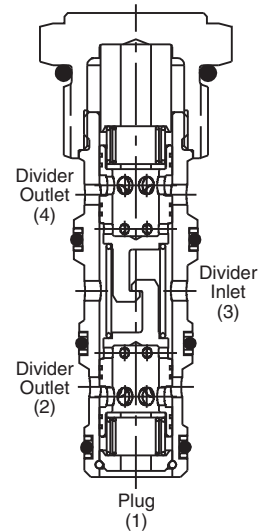
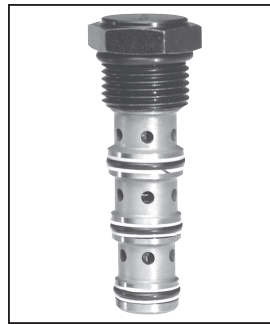
**Features**

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

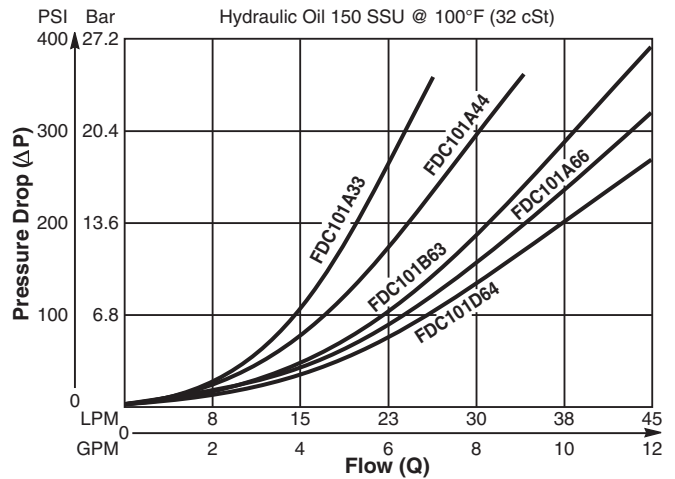
**Specifications**

<b>Maximum Flow</b>	45 LPM (12 GPM) See ordering information
<b>Maximum Inlet Pressure</b>	245 Bar (3500 PSI)
<b>Accuracy</b>	$\pm 10\%$
<b>Cartridge Material</b>	All parts steel. All operating parts hardened steel.
<b>Operating Temp. Range (Ambient)</b>	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
<b>Filtration</b>	ISO-4406 18/16/13, SAE Class 4
<b>Fluids</b>	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
<b>Approx. Weight</b>	.14 kg (0.3 lbs.)
<b>Cavity</b>	No. C10-4
<b>Form Tool</b>	Rougher NFT10-4R Finisher NFT10-4F

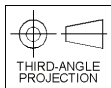
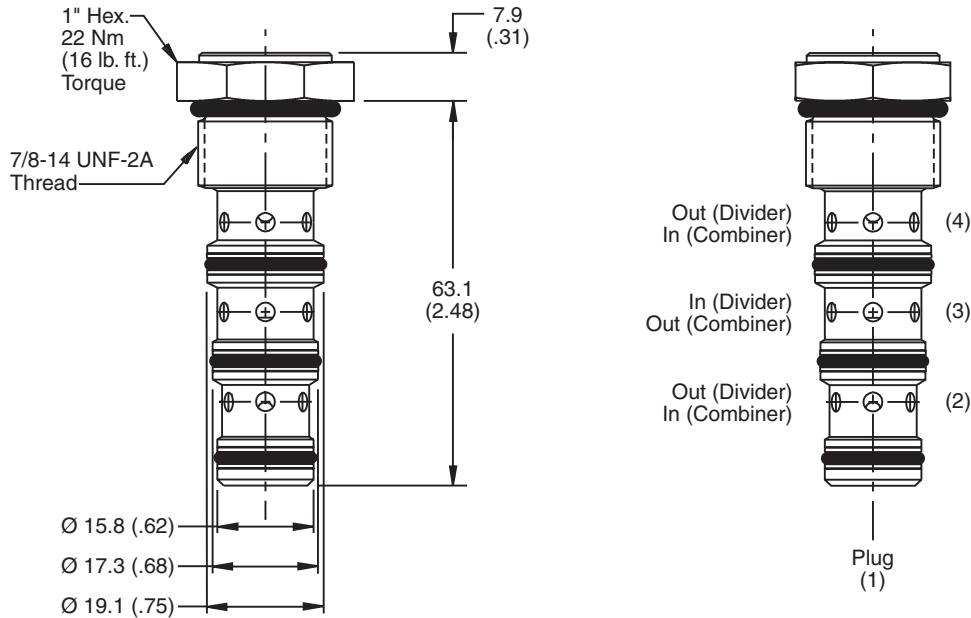
**Note:** When machining a manifold using the FDC101, use C10-4 cavity. Do not machine a port that directs flow to the nose of the cavity.



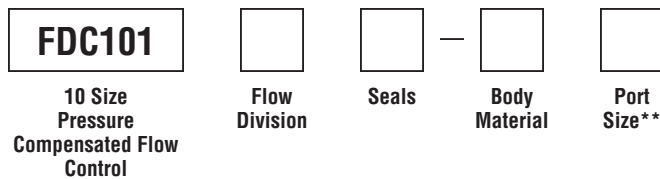
**Performance Curve**  
**Flow vs. Pressure Drop**  
(Through cartridge only)



**Dimensions** Millimeters (Inches)



**Ordering Information**



Code	Flow Division
<b>A11</b>	3.80 LPM (1 GPM) min. inlet 11.3 LPM (3 GPM) max. inlet 50% '4' Port and 50% '2' Port
<b>A33</b>	11.3 LPM (3 GPM) min. inlet 22.5 LPM (6 GPM) max. inlet 50% '4' Port and 50% '2' Port
<b>A44</b>	15.0 LPM (4 GPM) min. inlet 30.0 LPM (8 GPM) max. inlet 50% '4' Port and 50% '2' Port
<b>A66</b>	22.5 LPM ( 6 GPM) min. inlet 45.0 LPM (12 GPM) max. inlet 50% '4' Port and 50% '2' Port
<b>B64</b>	15.0 LPM ( 4 GPM) min. inlet 37.5 LPM (10 GPM) max. inlet 60% '4' Port and 40% '2' Port
<b>D63</b>	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.
<b>Omit</b>	Nitrile / (SK10-4N)
<b>V</b>	Fluorocarbon / (SK10-4V)

Code	Body Material
<b>Omit</b>	Steel
<b>A</b>	Aluminum

Code	Port Size	Body Part No.
<b>Omit</b>	Cartridge Only	
<b>6T</b>	SAE-6	(B10-4-*6T)
<b>8T</b>	SAE-8	(B10-4-*8T)

\* Add "A" for aluminum, omit for steel.

\*\*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

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.

- CV**  
Check Valves
- SH**  
Shuttle Valves
- LM**  
Load/Motor Controls
- FC**  
Flow Controls
- PC**  
Pressure Controls
- LE**  
Logic Elements
- DC**  
Directional Controls
- MV**  
Manual Valves
- SV**  
Solenoid Valves
- PV**  
Proportional Valves
- CE**  
Coils & Electronics
- BC**  
Bodies & Cavities
- TD**  
Technical Data