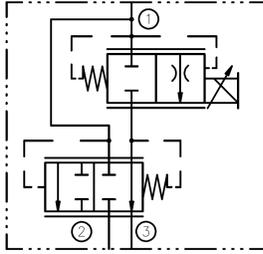


# DPFR2-100-3NC

Pressure Compensated, Normally-Closed,  
Proportional Flow Control Valve

## SERIES 10



### DESCRIPTION

A cartridge valve designed as an electro-proportional, pressure compensated, normally closed, flow control valve.

### OPERATION

The valve takes an input flow at port 1 and uses it to satisfy flow at port 3. If the input flow exceeds the requirement at port 3, the excess is bypassed out of port 2.

The valve pressure compensates the priority flow at port 3 for precise flow regulation. Bypass flow at port 2 is available once priority flow at port 3 is satisfied. The valve can also be used as a 2-way, electro-proportional pressure compensated flow control from ports 1 to 3, by completely blocking port 2.

### FEATURES and BENEFITS

- PWM Duty Cycle, Ramp Time, Current Limit, Dither Frequency and Amplitude, can be provided by consulting the factory.
- Continuous-duty solenoid
- Hardened precision spool and sleeve for long life
- Efficient wet-armature construction
- Industry common cavity

### SPECIFICATIONS

#### Coil Specifications:

#### 12 Volt System

Resistance - ohms @ 20°C

Threshold Current - 540 ± 100 mA

Max. Control Current - 1830 ± 150 mA

**Operating Pressure:** 3000 psi (207 bar)

**Flow:** See PRESSURE DROP VS. FLOW graph

#### -4 Flow Specifications:

**Regulated Flow Rate:** Bypass Blocked - 4 gpm (15 lpm)  
Bypass Open - 4.5 gpm (17 lpm)

**Maximum Input Flow:** Bypass Open - 7 gpm (26.5 lpm)

#### -8 Flow Specifications:

**Regulated Flow Rate:** Bypass Blocked - 7 gpm (26.5 lpm)  
Bypass Open - 8 gpm (30.3 lpm)

**Maximum Input Flow:** Bypass Open - 13 gpm (49.2 lpm)

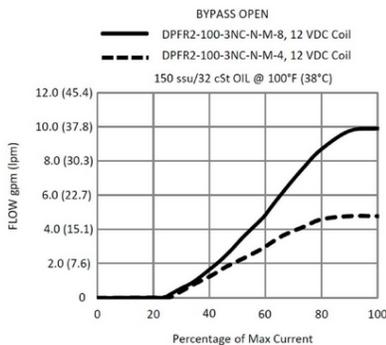
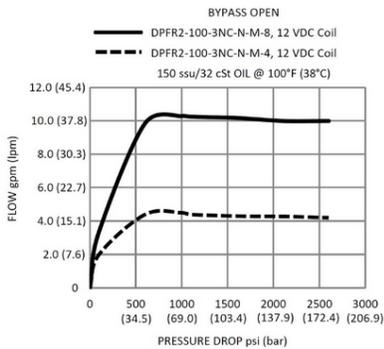
**Internal Leakage Fully Closed:** 197 cc/min at 3000 psi

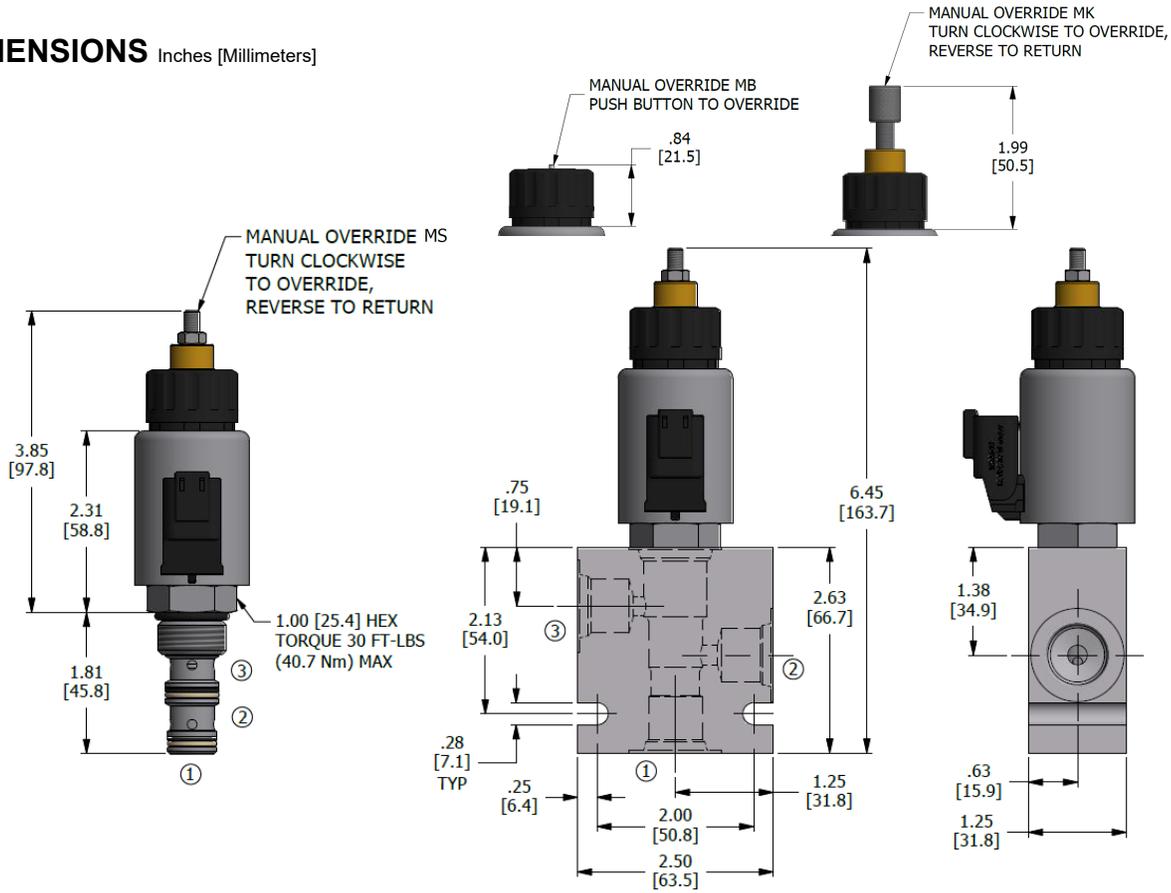
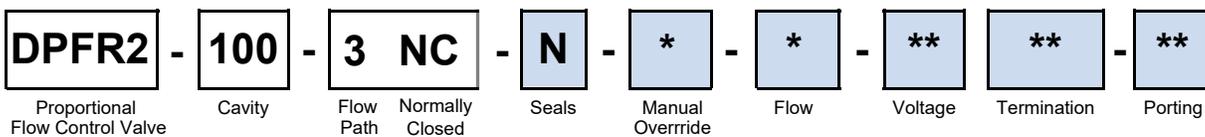
**Temperature:** -30°F to +250°F (-35°C to +120°C)

**Coil Rating:** Continuous from 85% to 110% of rated voltage **Recommended Filtration:** Critical Application ISO 17/15/13 **Fluids:** Mineral-based fluids.

**Cavity:** 100-3, see page 11.10.3

**In-Line Body Material:** Anodized 6061T6 aluminum alloy rated at 3000 psi (207 bar)



**DIMENSIONS** Inches [Millimeters]

**HOW TO ORDER**


Seals	
<b>N</b>	Buna N

Voltage	
omit	Cartridge only w/nut
<b>D1</b>	DC 12 Volt
<b>D2</b>	DC 24 Volt

Termination	
omit	Cartridge only w/nut
<b>UE</b>	Deutsch
<b>HE</b>	DIN 43650

Porting		In-Line Body w/o Cartridge
omit	Cartridge only	
<b>2N</b>	1/4 PTF	B-100-4-2N
<b>3N</b>	3/8 PTF	B-100-4-3N
<b>6T</b>	SAE 6	B-100-4-6T
<b>8T</b>	SAE 8	B-100-4-8T

Manual Override	
<b>MS</b>	Manual Screw
<b>MB</b>	Manual Button
<b>MK</b>	Manual Knob

Flow †	
<b>4</b>	4 GPM
<b>8</b>	8 GPM

† Other options available – consult factory

Valve, Coil, and In-Line Body are supplied individually and need to be assembled. For a completed assembly consult the factory.

All variations may not be configurable. Minimum order quantities may be required on other models. Contact Deltrol Fluid Products for complete details.