



This valve is a 3-way, meter-in, electro-proportional throttle. The flow path, unenergized, has the supply blocked at port 1 and port 2 is drained to tank at port 3. Energizing the coil generates a closing force on the spool, creating a metering orifice in the 1 to 2 direction that is proportional to the coil command current. The valve self-compensates in the 1-to-2 direction and with the addition of an external compensator will provide pressure compensated flow control.

Flow in the 2-to-3 direction is not proportional and is limited in the interest of increased resolution and capacity. Flow capacity in the 2-to-3 direction is about 1.5 gpm (6 L/min). This valve is meant to be used in a circuit that has a separate passage to tank such as a cushion lock circuit. Two FMDAs in conjunction with a cushion lock circuit create a meter-in/meter-out 3-position 4-way.

### TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Manual Override Force Requirement	33 N/100 bar @ Port 1
Manual Override Stroke	2,5 mm
Seal kit - Cartridge	Buna: 990411007
Seal kit - Cartridge	Viton: 990411006

### NOTES

Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.

### CONFIGURATION OPTIONS

#### Model Code Example: FMDAXDN

CONTROL	(X) FLOW RATE	(D) SEAL MATERIAL	(N) COIL *
<b>X</b> No Manual Override	<b>D</b> .1 - 9 gpm (0,4 - 34 L/min.)	<b>N</b> Buna-N	No coil
<b>D</b> Twist/Lock (Dual) Manual Override	<b>A</b> .1 - 1.6 gpm (0,4 - 6.1 L/min.)	<b>E</b> EPDM	<b>212</b> DIN 43650-Form A, 12 VDC
<b>E</b> Twist (Extended) Manual Override	<b>B</b> .1 - 4 gpm (0,4 - 15 L/min.)	<b>V</b> Viton	<b>224</b> DIN 43650-Form A, 24 VDC
<b>L</b> Twist/Lock (Detent) Manual Override	<b>C</b> .1 - 6 gpm (0,4 - 23 L/min.)		<b>912</b> Deutsch DT04-2P, 12 VDC
<b>M</b> Manual Override			<b>924</b> Deutsch DT04-2P, 24 VDC
<b>T</b> Twist (Momentary) Manual Override			

\* Additional coil options are available