



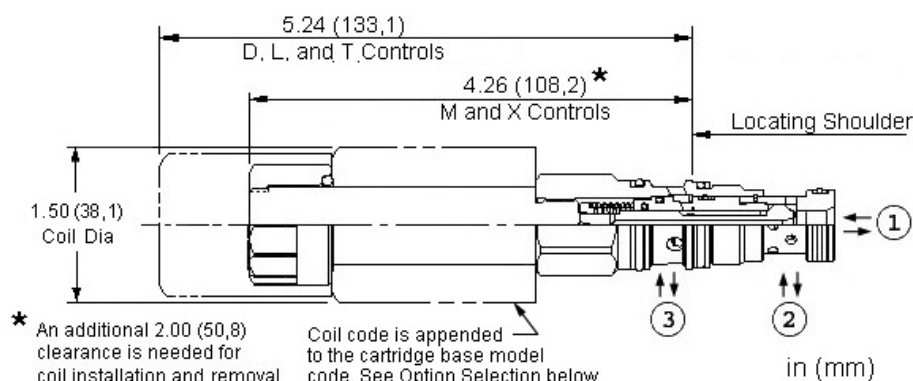
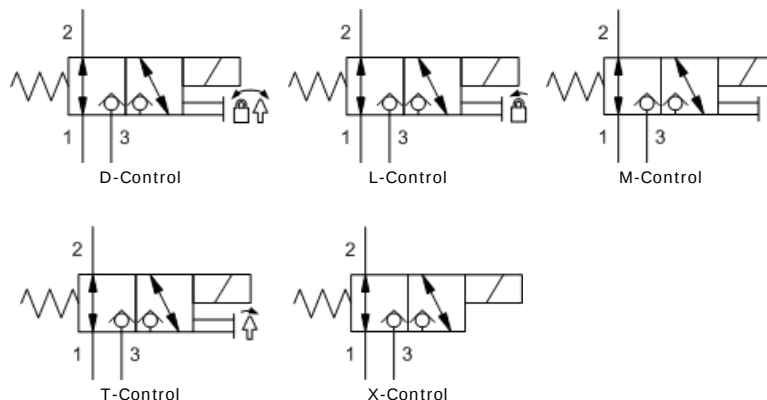
3-way, direct-acting, solenoid-operated directional poppet valve

Capacity:
7.5 gpm (30 L/min.)

Model:
DWDA

Product Description

This solenoid-operated 3-way, 2-position cartridge is a direct-acting, poppet-style directional valve. The valve is normally open between port 1 and port 2 with port 3 blocked. Energizing the valve connects port 2 to 3 and blocks port 1. All flow paths are bidirectional and blocked paths are blocked in both directions. The poppet style construction makes it well suited for load holding or load blocking applications.

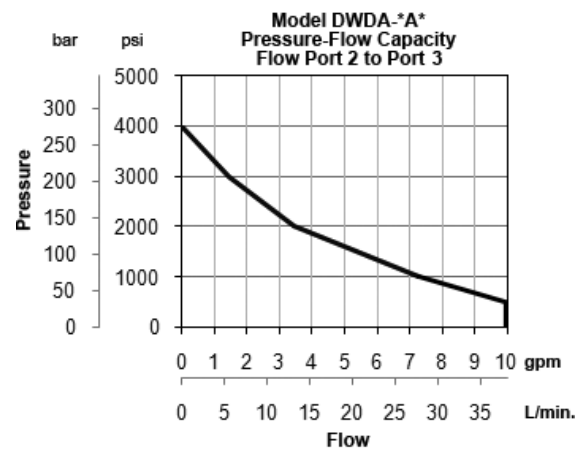
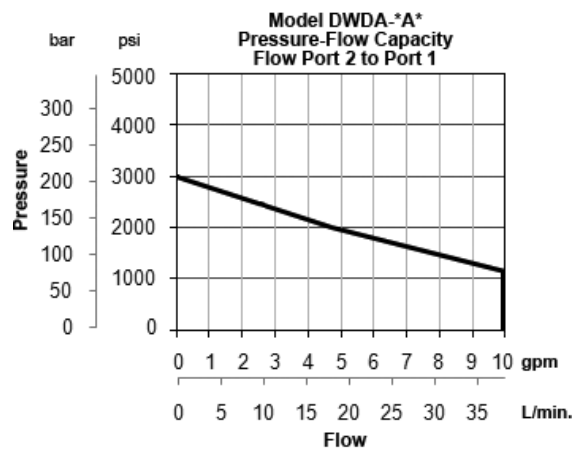
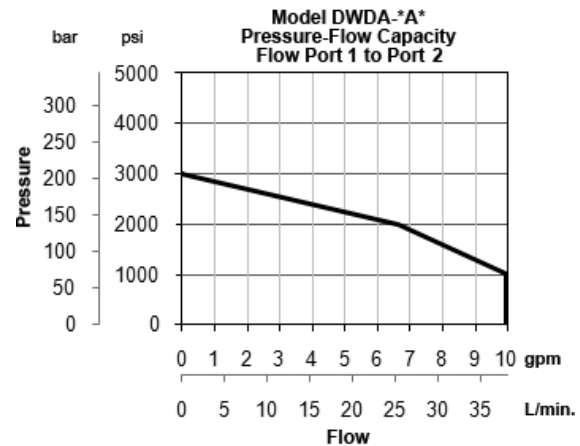
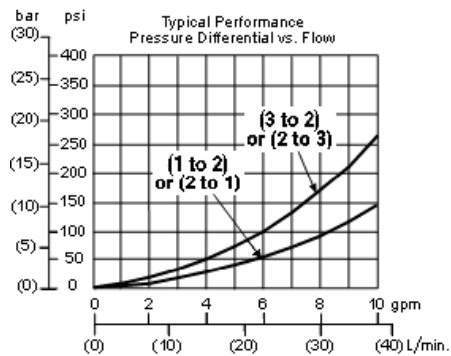


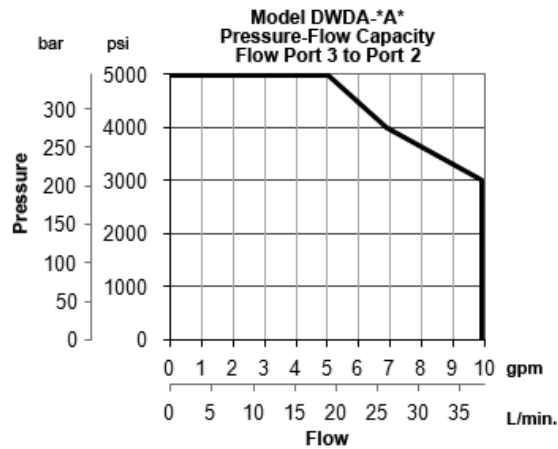
Technical Features

- The solenoid tube assembly is fatigue rated for 5000 psi (350 bar) service.
- This valve is direct actuated and requires no minimum hydraulic pressure for operation.
- Valves exhibit extremely low leakage rates; less than 10 drops/min. @ 5000 psi (0,7 cc/min @ 350 bar).
- Suitable for load holding applications.
- This cartridge has several manual override choices, including no manual override. See Option Selection below.
- This valve utilizes a wet armature design. This means that the working fluid surrounds the armature and is exposed to the heat generated by the coil. This can be a factor if the coil is energized for long periods of time. Some fluids, notably water/glycol mixtures, break down at these temperatures over time and form varnishes that will affect the function of the cartridge.
- A wide variety of coil termination and voltage options are available.
- The solenoid's unique magnetic design results in a high efficiency solenoid, yielding high spool actuating force per Watt expended, leading to reliable valve shifting.
- Coils are interchangeable with other Sun Series 1 solenoid products and can be mounted on the tube in either direction.
- Coil connector options offer ratings up to IP69K. See individual coil product pages for details. Additional weatherized coils and kits are available for more complete environmental protection.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

Technical Data

	U.S. Units	Metric Units
Cavity	T-11A	
Capacity	7.5 gpm	30 L/min.
Manual Override Force Requirement	5 lbs/1000 psi @ Port 1	3 kgs/100 bar @ Port 1
Manual Override Stroke	.10 in.	2,5 mm
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	10 drops/min.@5000 psi	0,7 cc/min.@350 bar
Response Time - Typical	50 ms	
Series (from Cavity)	Series 1	
Switching Frequency	15000 cycles/hr	
Solenoid Tube Diameter	.75 in.	19 mm
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	30 - 35 lbf ft	40 - 50 Nm
Seal Kits - Cartridge	Buna: 990-411-007	
Seal Kits - Cartridge	Viton: 990-411-006	
Seal Kits - Coil	Viton: 990-770-006	
Model Weight	0.76 lb.	0.34 kg.





DWDA-XAN-***

Control

Preferred Options

M Manual Override (Standard)
X No Manual Override
Standard Options

D Twist/Lock (Dual) Manual Override
L Twist/Lock (Detent) Manual Override
T Twist Manual Override
Standard Coil Options

Spool Configuration

Preferred Options

A Normally Open 1 to 2, Closed 2 to 3

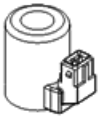
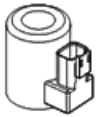
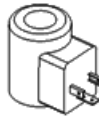
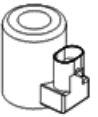
Seal Material

Preferred Options

N Buna-N
Standard Options
V Viton

Coil

*** See Coil Options Below

					
AMP Junior Timer	Deutsch DT04-2P	DIN 43650 4 pin (Hirschman)	Metri-Pack	SAE J858A	Twin Lead

*** no coil		524	SAE J858A 24 VDC	812	Metri-Pack 12 VDC
211	DIN 43650 4 pin (Hirschman) 115 VAC	528	SAE J858A 28 VDC	814	Metri-Pack 14 VDC
212	DIN 43650 4 pin (Hirschman) 12 VDC	536	SAE J858A 36 VDC	824	Metri-Pack 24 VDC
214	DIN 43650 4 pin (Hirschman) 14 VDC	612	AMP Junior Timer 12 VDC	828	Metri-Pack 28 VDC
223	DIN 43650 4 pin (Hirschman) 230 VAC	614	AMP Junior Timer 14 VDC	836	Metri-Pack 36 VDC
224	DIN 43650 4 pin (Hirschman) 24 VDC	624	AMP Junior Timer 24 VDC	848	Metri-Pack 48 VDC
228	DIN 43650 4 pin (Hirschman) 28 VDC	628	AMP Junior Timer 28 VDC	912	Deutsch DT04-2P 12 VDC
236	DIN 43650 4 pin (Hirschman) 36 VDC	636	AMP Junior Timer 36 VDC	914	Deutsch DT04-2P 14 VDC
248	DIN 43650 4 pin (Hirschman) 48 VDC	712	Twin Lead 12 VDC	924	Deutsch DT04-2P 24 VDC
297	DIN 43650 4 pin (Hirschman) 24 VAC	724	Twin Lead 24 VDC	928	Deutsch DT04-2P 28 VDC
298	DIN 43650 4 pin	728	Twin Lead 28 VDC	936	Deutsch DT04-2P 36 VDC

(Hirschman) 220 VDC

299 DIN 43650 4 pin
(Hirschman) 127 VDC

514 SAE J858A 14 VDC

*Embedded Coil Options*2E12V DIN 43650 4 pin
(Hirschman) programmable
via IR link coil/power saver
12 VDC 0-10V2E24V DIN 43650 4 pin
(Hirschman) programmable
via IR link coil/power saver
24 VDC 0-10V*Additional Options**Additional Coils*

512 SAE J858A 12 VDC

548 SAE J858A 48 VDC

648 AMP Junior Timer 48 VDC

736 Twin Lead 36 VDC

4E12V Deutsch DT04-6P
programmable via IR link
coil/power saver 12 VDC 0-
10V71219 Twin Lead to Delphi
Weather-Pack Connector, 9
inch lead length, 12 VDC

714 Twin Lead 14 VDC

948 Deutsch DT04-2P 48 VDC

4E24V Deutsch DT04-6P
programmable via IR link
coil/power saver 24 VDC 0-
10V72419 Twin Lead to Delphi
Weather-Pack Connector, 9
inch lead length 24 VDC

748 Twin Lead 48 VDC