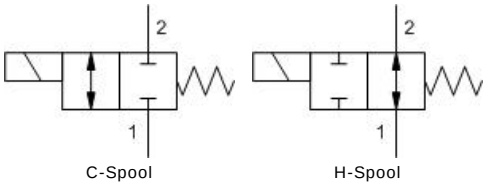
2-way, soft shift, solenoid-operated directional spool valve

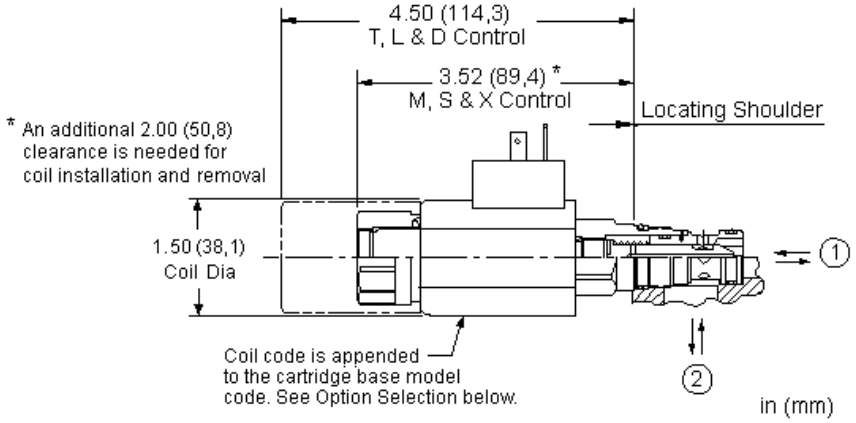
Capacity:
7.5 gpm (30 L/min.)

Model:
DLDAS

Product Description

This solenoid-operated 2-way, 2-position cartridge is a direct-acting, balanced spool valve with a soft shift feature. The soft shift feature greatly reduces system shock due to valve actuation. The valve is available in either a normally open or normally closed configuration.





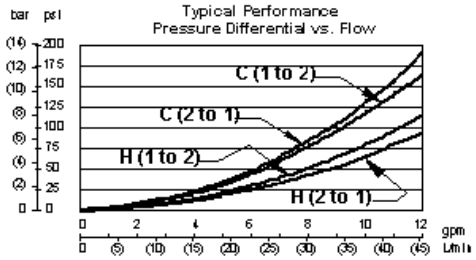
Technical Features

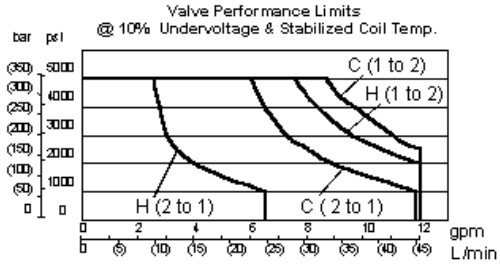
- The soft shift cartridge is interchangeable with the standard cartridge, however, the performance limits are lower.
- The soft shift feature can greatly reduce shock due to valve actuation but should not be counted upon in applications where timing is critical. If you need accurate ramping or timing control, consider Sun's electro-proportional valves.
- The soft shift feature results in significant increase in response time over Sun's standard solenoid. Response time is dependant on flow, pressure, coil voltage, oil viscosity and ambient temperature. Typical response time ranges from 150 ms to 300 ms.
- For consistent soft shift performance, port 1 should be at a positive pressure.
- This valve comes with a manual override control. Other manual control options such as T or D, cannot be ordered with the soft shift control but can be installed easily in the field. See Twist/Lock Manual Override link above for details.
- The solenoid tube assembly is fatigue rated for 5000 psi (350 bar) service.
- 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.
- 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.
- 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-13A	
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)	5 in³/min.@3000 psi	80 cc/min.@210 bar
Series (from Cavity)	Series 1	
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: 990-413-007	
Seal Kits - Cartridge	Viton: 990-413-006	
Model Weight	0.65 lb.	0.29 kg.





DLDA-SCN-***

Spool Configuration

Preferred Options

C	Normally Closed
H	Normally Open

Seal Material

Preferred Options

N	Buna-N

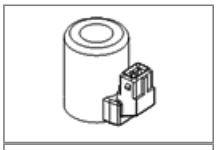
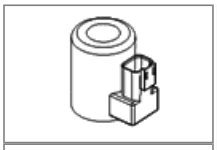
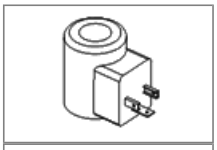
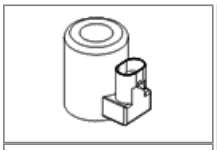
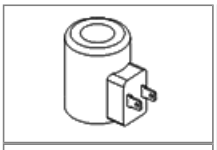
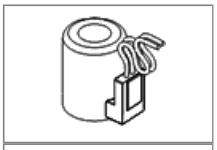
Standard Options

V	Viton

Coil

*** See Coil Options Below

Standard Coil Options

					
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 (Hirschman) 220 VDC	728	Twin Lead 28 VDC	936	Deutsch DT04-2P 36 VDC
299	DIN 43650 4 pin (Hirschman) 127 VDC	736	Twin Lead 36 VDC	948	Deutsch DT04-2P 48 VDC
514	SAE J858A 14 VDC				

Embedded Coil Options

2E12V	DIN 43650 4 pin (Hirschman) programmable via IR link coil/power saver 12 VDC 0-10V	4E12V	Deutsch DT04-6P programmable via IR link coil/power saver 12 VDC 0-10V	4E24V	Deutsch DT04-6P programmable via IR link coil/power saver 24 VDC 0-10V
2E24V	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	71239	Twin Lead to Connector, 9 inch lead length	72429	Twin Lead to Connector, 9 inch lead length
548	SAE J858A 48 VDC	71299	Twin Lead to Deutsch connector, 9 inch lead length	72439	Twin Lead to Connector, 9 inch lead length
648	AMP Junior Timer 48 VDC	714	Twin Lead 14 VDC	72499	Twin Lead to Deutsch connector, 9 inch lead length
71219	Twin Lead to Delphi Weather-Pack Connector, 9 inch lead length, 12 VDC	72419	Twin Lead to Delphi Weather-Pack Connector, 9 inch lead length 24 VDC	748	Twin Lead 48 VDC