



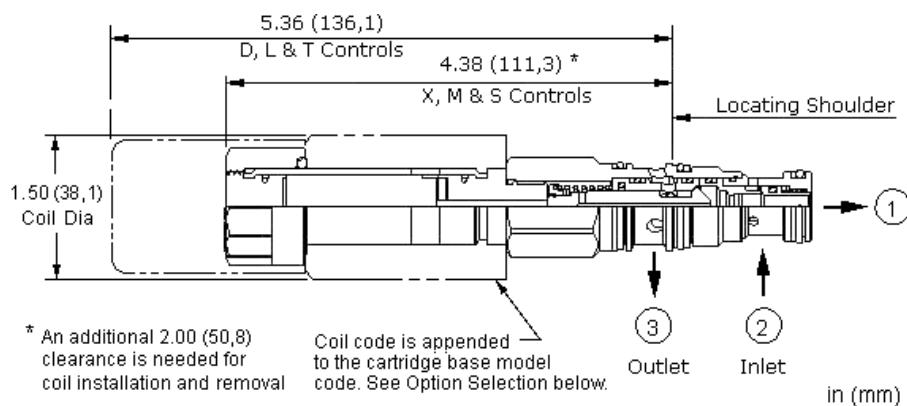
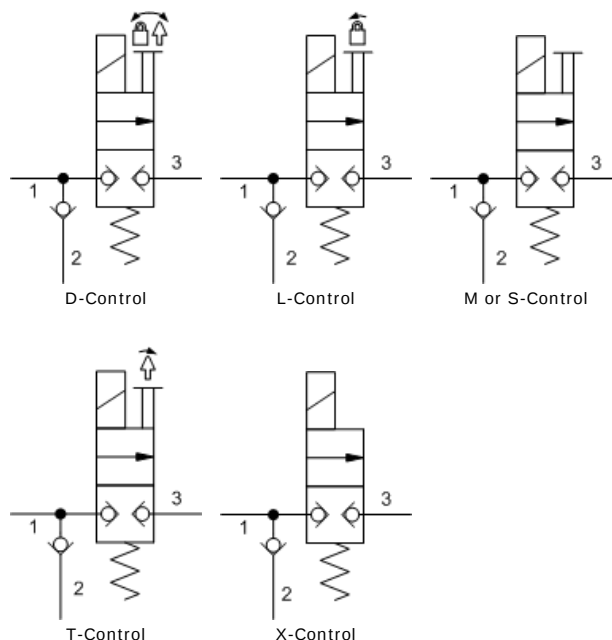
2-way, solenoid-operated directional poppet valve - after check

Capacity:
10 gpm (40 L/min.)

Model:
HDDA

Product Description

This solenoid-after check cartridge is a hybrid valve incorporating a direct acting solenoid poppet valve teed in after the check function. The check valve flow is from the inlet (port 2) to the system (port 1). With the solenoid de-energized flow from (port 2) to (port 3) is blocked. This combination valve is typically used in lift/lower applications and can be integrated directly into the actuator.



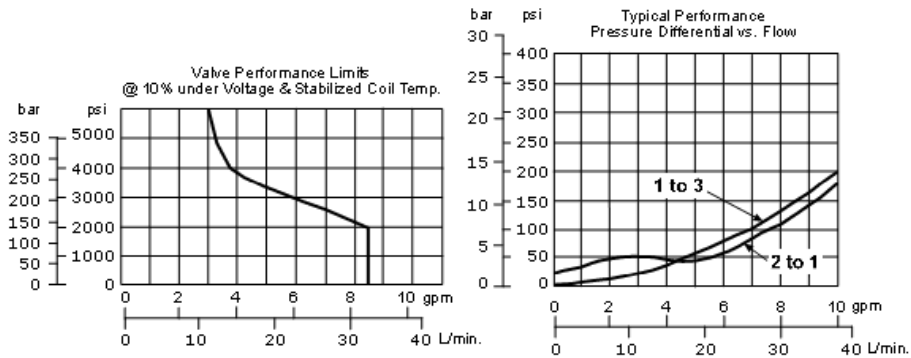
Technical Features

- The solenoid tube assembly is fatigue rated for 5000 psi (350 bar) service.
- Suitable for load holding applications.
- This cartridge has several manual override choices, including no manual override. See Option Selection below.
- 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.

- 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.

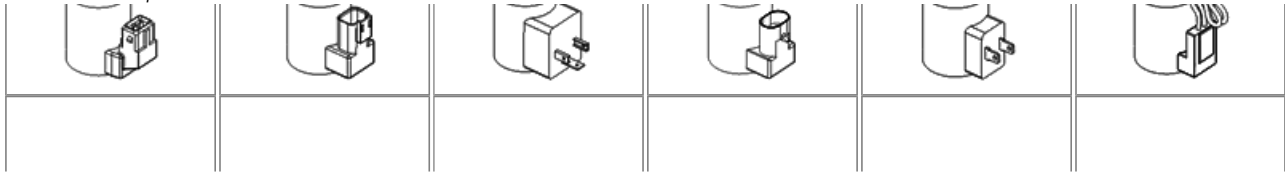
Technical Data

	U.S. Units	Metric Units
Cavity	T-11A	
Capacity	10 gpm	40 L/min.
Check Cracking Pressure	30 psi	2 bar
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: 990-011-007	
Seal Kits - Cartridge	Viton: 990-011-006	
Seal Kits - Coil	Viton: 990-770-006	
Model Weight	0.76 lb.	0.34 kg.



HDDA-XCN-***

Control	Spool Configuration	Seal Material	Coil
Standard Options	Standard Options	Standard Options	*** See Coil Options Below
D Twist/Lock (Dual) Manual Override	C Normally Closed	N Buna-N	
L Twist/Lock (Detent) Manual Override		V Viton	
M Manual Override			
T Twist (Momentary) Manual Override			
X No Manual Override			
Standard Coil Options			



AMP Junior Timer	Deutsch DT04-2P	DIN 43650 4 pin (Hirschman)	Metri-Pack	SAE J858A	Twin Lead
*** no coil		299 DIN 43650 4 pin (Hirschman) 127 VDC		812 Metri-Pack 12 VDC	
211 DIN 43650 4 pin (Hirschman) 115 VAC		524 SAE J858A 24 VDC		824 Metri-Pack 24 VDC	
212 DIN 43650 4 pin (Hirschman) 12 VDC		612 AMP Junior Timer 12 VDC		828 Metri-Pack 28 VDC	
223 DIN 43650 4 pin (Hirschman) 230 VAC		624 AMP Junior Timer 24 VDC		848 Metri-Pack 48 VDC	
224 DIN 43650 4 pin (Hirschman) 24 VDC		628 AMP Junior Timer 28 VDC		912 Deutsch DT04-2P 12 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		948 Deutsch DT04-2P 48 VDC	
298 DIN 43650 4 pin (Hirschman) 220 VDC					
<i>Embedded Coil Options</i>					
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					
<i>Additional Options</i>					
<i>Additional Coils</i>					
512 SAE J858A 12 VDC		648 AMP Junior Timer 48 VDC		748 Twin Lead 48 VDC	
548 SAE J858A 48 VDC		72419 Twin Lead to Delphi Weather-Pack Connector, 9 inch lead length 24 VDC			