



2.37

# 35SD12-20 TYPE

## Solenoid Directional Valve

Rated pressure (bar / psi)	240 / 3500
Peak flow (L/min / gpm)	113.6 / 30 (See performance chart)

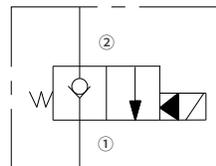
### Features

- Continuous-duty rated coil
- Cartridges are voltage interchangeable
- Optional waterproof E-Coils rated up to IP69K
- Efficient wet-armature construction
- Industry common cavity
- Hardened parts for long life

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### Symbol



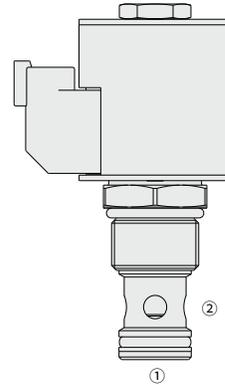
## Description

A solenoid-operated, 2-way, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load holding or blocking valve in applications requiring low internal leakage.

## Operation

When de-energized, the 35SD12-20 acts as a check valve, allowing flow to pass from ① to ②, while blocking flow in the reverse direction.

When energized, the poppet lifts to open the ② to ① flow path. In this mode, flow from ① to ② is severely restricted.



## Ordering Code

<b>35SD12-20</b>	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>				
<b>Option:</b>	Blank										
None											
<b>Cartridge only</b>			0								
<b>Seals:</b>											
Buna N(Std.)						N					
Fluorocarbon						V					
<b>Voltage Std. Coil:</b>											
Less Coil							00				
10VDC							10				
12VDC							12				
20VDC							20				
24VDC							24				
<b>Termination (VDC)</b>											
<b>E-Coil:</b>											
Amp Junior Timer										EJ	
(IP67 Rated)											
Deutsch DT04-2P										ER	
(IP69K Rated)											
DIN 43650										EG	
(IP65 Rated)											
<b>Termination (VDC)</b>											
<b>D-Coil:</b>											
Dual Spades										DS	
(SAE J858a, IP65K Rated)											

## Materials

### Cartridge:

Weight: 0.27 kg; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N (Std. ) seal.

### Standard Ported Body:

Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available; Dimensions may differ, consult factory.

**Standard Coil:** Consult factory.

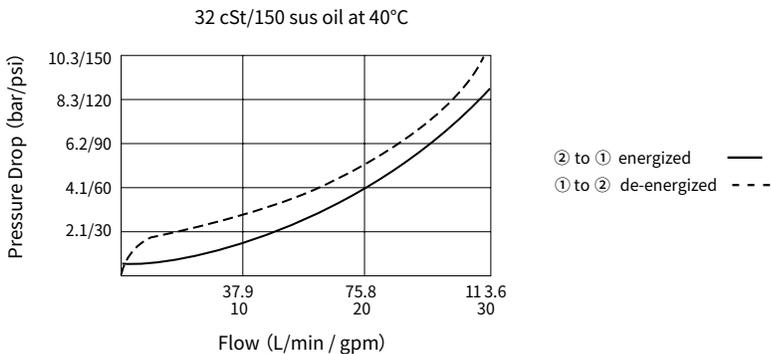
### E-Coil:

Weight: 0.41 kg; Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with Deutsch sockets.

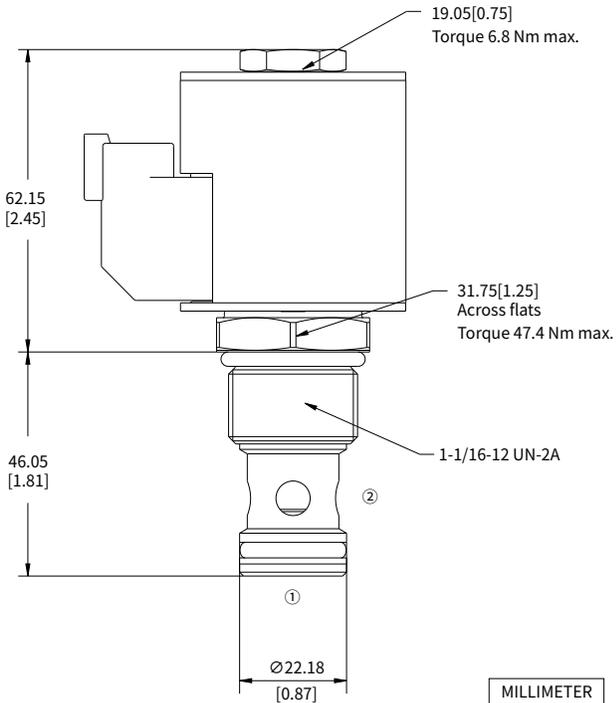
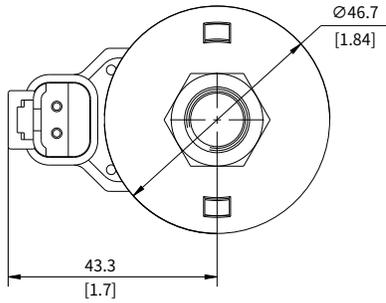
## Technical Data

Rated pressure	240 bar (3500 psi)	
Peak flow	See performance chart	
Internal leakage	≤ 3 drops/min@240 bar	
Coil duty rating	Continuous from 85% to 115% of nominal voltage	
Response Time	First indication of change of state with 100% voltage supplied at 80% of nominal flow rating; Energized: 40 msec.; De-energized: 80 msec.	
Initial coil current draw at 20°C	E-Coil	1.7 A at 12VDC; 0.85 A at 24VDC
	D-Coil	1.67 A at 12VDC; 0.83 A at 24VDC
Minimum pull-in voltage	85% of nominal at 207 bar	
Cavity	VC12-2 (See technical reference)	
Fluid	Mineral-based or synthetics with lubricating properties	
Viscosity range	7.4 to 420 mm <sup>2</sup> /s	
Temperature range	-40 to 100 °C (Buna N seals)	
	-26 to 204 °C (Fluorocarbon seals)	
Degree of fluid contamination	The minimum pollution level is ISO4406 level 18/16/13, and level 15/13/11 is recommended to prolong the service life	

## Performance (Cartridge Only)



## Dimensions



MILLIMETER
[INCH]