



Solenoid Valves Technical Information

3 Way, 2 Position Spool

SV15-23-04



OPERATION

Solenoid Valve, Spool Type, 2-Position, 3-Way, High Flow (15-Size). When de-energized, the SV15-23-04 allows flow from port 3 to port 2, blocking port 1. When energized, ports 2 and 1 are connected, blocking port 3. Port 1 may be fully pressurized, but is not intended to be the inlet port. Follow the "Operating Envelope" limits to ensure shifting of the valve during operation. This valve is a direct replacement for EDH 12/3201 and uses a metric M33x2 cavity (NCS 12/3) for high flow capability.



Shown with Standard Coil,
Deutsch Connector

APPLICATIONS

These spool-type valves are primarily used in mobile and industrial applications for controlling the direction of the flow in a circuit like a single-acting cylinder, clutch, brake, circuit selector valve, or pilot for a large directional spool valve. Solenoid spool-type valves are direct acting and respond quickly to coil voltage input. Spool valves will have some leakage due to spool clearance, so if your application requires no leakage at the working port(s), apply a low leakage poppet valve(s), like PO check valve, counterbalance valve, etc., in addition to this solenoid valve. This valve can operate with an inlet pressure of 315 bar for 100,000 cycles. In case of inlet from port 2 this value can be increased to 300,000 cycles.

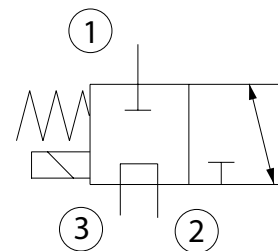
SPECIFICATIONS

| | |
|---------------------------------------|--------------------------|
| Rated Pressure* | 210 bar [3045 psi]** |
| Maximum Rated Flow at 7 bar [100 psi] | 50 l/min [13 US gal/min] |
| Weight including coil | 0.89 kg [1.96 lbs] |
| Cavity | NCS 12/3 |
| Coil | M19 33 Watt |
| Diode (Optional) | Unidirectional |

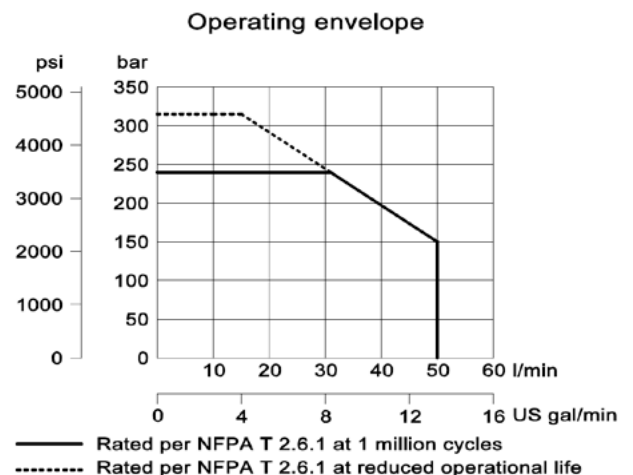
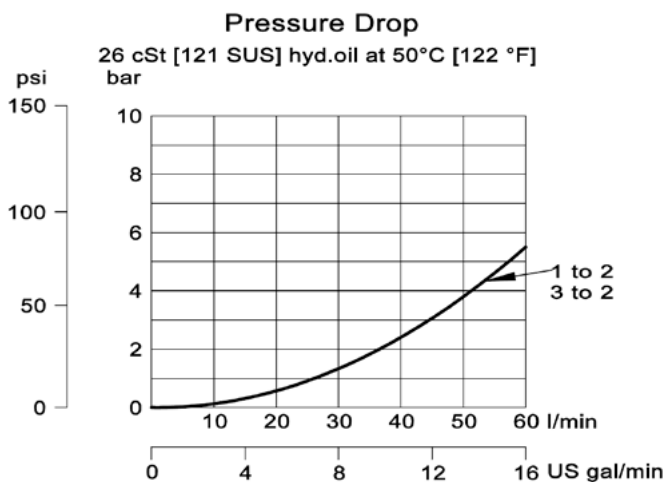
* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).

** See 315 bar pressure rating note on page 10.

SCHEMATIC



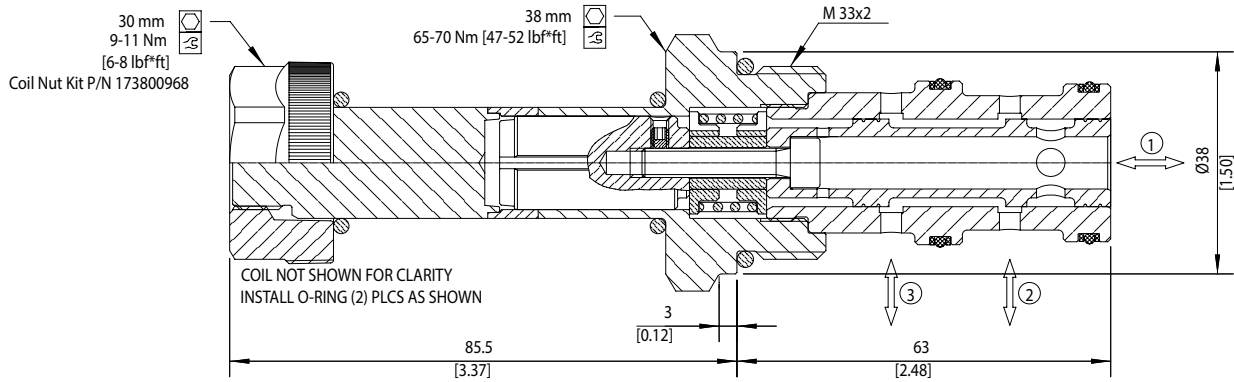
PERFORMANCE CURVES



DIMENSIONS

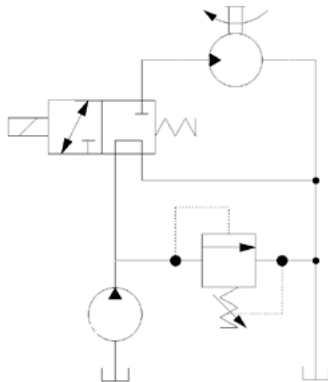
mm [in]

Cross-sectional view

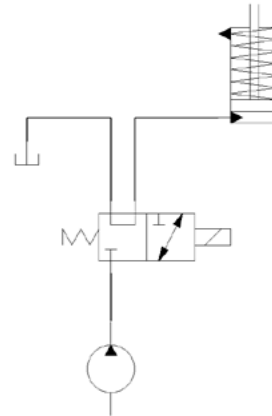


EXAMPLE CIRCUITS

Uni-directional Motor



Single Acting Cylinder



ORDERING INFORMATION

SV15 - 23 - 04 - 12D - DE - B - 00

Solenoid Valve, Spool
Type, 15 Size Cavity

23:
2 Position, 3 Way

04:
Schematic type

| Coil Voltage | Standard Coil Code |
|--------------------|--------------------|
| No Coil, with nut* | 00 |
| 10 VDC | 10D |
| 12 VDC | 12D |
| 20 VDC | 20D |
| 24 VDC | 24D |
| 110 VAC** | 110A |
| 220 VAC** | 220A |

* Standard coil – plastic nut and O-rings

** External Rectifier Needed – DN termination only

| Code | Body and Ports | Body Nomenclature |
|------|----------------|-------------------|
| 00 | Cartridge Only | No Body |
| 8S | #8 SAE, AL | NCS 12/3-SE-8S |
| 12S | #12 SAE, AL | NCS 12/3-SE-12S |
| 4B | 1/2 BSP, AL | NCS 12/3-SE-1/2 |
| 6B | 3/4 BSP, AL | NCS 12/3-SE-3/4 |

| Seal Code | Material | Seal Kits |
|-----------|----------|-----------|
| B | Buna-N | 11115764 |
| V | Viton | 11115765 |

| Coil Termination | Standard Coil Code | IP Rating |
|-----------------------|--------------------|-----------|
| No Coil | 00 | - |
| Amp Junior | AJ | IP67 |
| Amp Junior with Diode | AJD | IP67 |
| Deutsch | DE | IP67 |
| Deutsch with Diode | DED | IP67 |
| Flying Leads | FL | IP65 |
| DIN 46650 | DN | IP65 |