



Solenoid Valves Technical Information

3-Way, 2-Position Spool

SV08-23-03



OPERATION

This is a direct-acting, 3-way, 2-position, spool-type, 08-size solenoid valve. When de-energized, the SV08-23-03 allows flow between port 1 and port 2, while port 3 is blocked. When energized, flow is allowed between port 3 and port 2, while port 1 is blocked. This valve comes standard with a one-direction, push-pin manual override.

APPLICATIONS

Common applications include on-off control of single-acting cylinders, clutches, or motors. 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 400,000 cycles. In case of inlet from port 2 this value can be increased to 600,000 cycles.



Shown with Robust Coil,
Metri-Pack Type 2 Connector

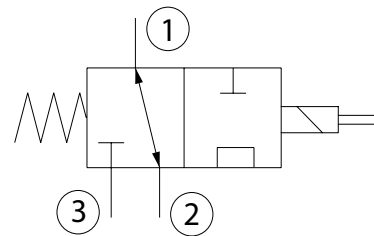
SPECIFICATIONS

| | |
|-------------------------------|---|
| Rated pressure* | 230 bar [3300 psi]** |
| Rated flow at 7 bar [100 psi] | 18 l/min [5 US gal/min] |
| Weight | 0.31 kg [0.68 lb] |
| Cavity | SDC08-3 |
| Standard Coil | M13 20 Watt |
| Robust Coil | R13 16 Watt Robust Nut P/N 173800539 (no coil O-rings needed) |

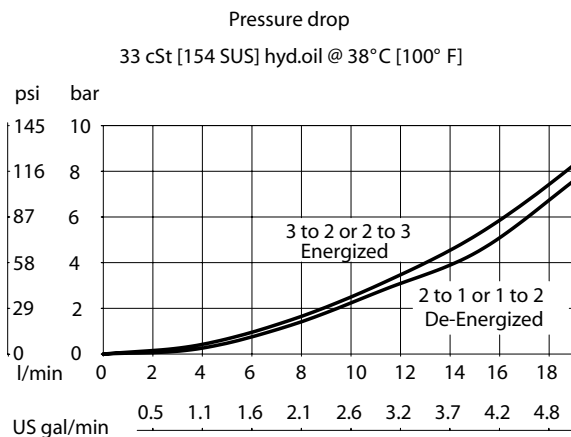
* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).

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

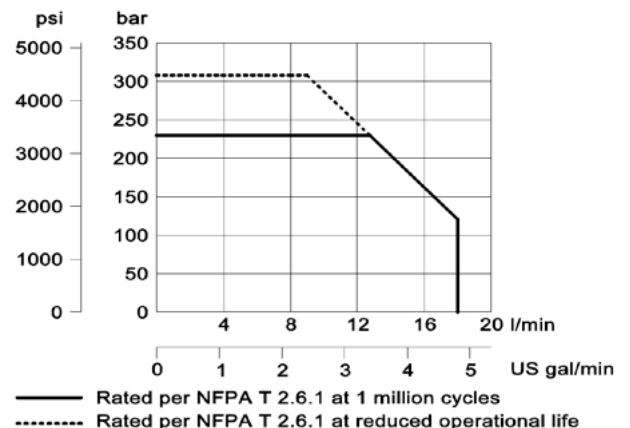
SCHEMATIC



PERFORMANCE CURVES



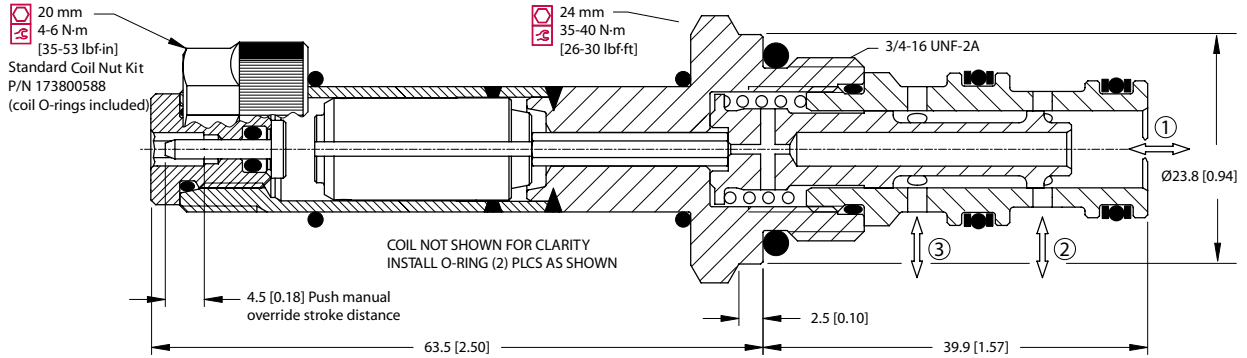
Operating envelope



DIMENSIONS

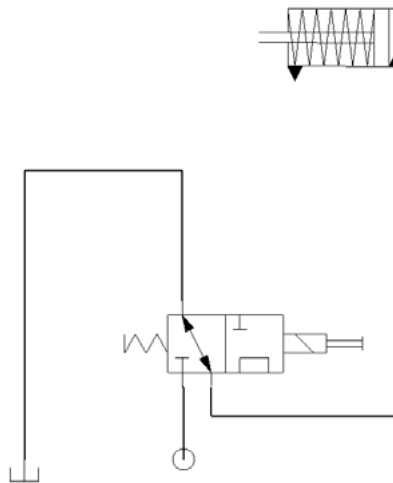
mm [in]

Cross-sectional view



EXAMPLE CIRCUITS

Single Acting Cylinder



ORDERING INFORMATION

SV08 - 23 - 03 - 12D - DE - PB - B - 00

Solenoid Valve, 08
Size Cavity

23:
2 Position, 3 Way, Spool Type

03:
Schematic: Push Type

| Code | Body and Ports | Body Nomenclature |
|------|----------------|-------------------|
| 00 | Cartridge Only | No Body |
| 4S | #4 SAE, AL | CP08-3-4S |
| 6S | #6 SAE, AL | CP08-3-6S |
| S6S | #6 SAE, Steel | CP08-3-S6S |
| SE2B | 1/4 BSP, AL | SDC08-3-SE2B |
| SE3B | 3/8 BSP, AL | SDC08-3-SE3B |
| S3B | #6 SAE, Steel | CP08-3-S3B |

| Seal Code | Material | Seal Kits |
|-----------|----------|-----------|
| B | Buna-N | 354003210 |
| V | Viton | 354003819 |

| Coil Voltage | Standard Coil Code | Robust Coil Code |
|--------------------|--------------------|------------------|
| No Coil, with nut* | 00 | R00 |
| 10 VDC | 10D | R10D |
| 12 VDC | 12D | R12D |
| 20 VDC | 20D | R20D |
| 24 VDC | 24D | R24D |
| 110 VAC** | 110A | - |
| 220 VAC** | 220A | - |

* Standard coil – plastic nut and O-rings
R-coil – steel nut P/N 173800539
(no coil O-rings needed)
** DIN only - external rectifier needed

| Coil Termination | Standard Coil Code | IP Rating | Robust Coil Code | IP Rating |
|---------------------------|--------------------|-----------|------------------|-----------|
| No Coil | 00 | - | 00 | - |
| Amp Junior | AJ | IP67 | - | - |
| Amp Junior with Diode | AJD | IP67 | - | - |
| AMP SuperSeal 1.5 | AS | IP67 | AS | IP69K |
| AMP SuperSeal with Diode | ASD | IP67 | ASDB | IP69K |
| Deutsch | DE | IP67 | DE | IP69K |
| Deutsch with Diode | DED | IP67 | DEDB | IP69K |
| Flying Leads | FL | IP65 | FL | IP69K |
| Flying Leads with Diode | FLD | IP65 | FLDB | IP69K |
| DIN 43650 | DN | IP65 | - | - |
| Metri-Pack 150, Type 2 | - | - | M3 | IP69K |
| Metri-Pack 150 with Diode | - | - | M3DB | IP69K |

| Code | Manual Override |
|------|-------------------------------|
| Omit | Push Pin (Standard) |
| PB | Push Button |
| SPS | Screw Style (Push-Type Valve) |