

Rotary shear valve 6 port, 2 position

VD06021SSNAPI0550

- Rated to 380 bar (5,500 psi)
- Dynamically alternating between two fluid paths without manually disconnecting plumbing
- High precision position sensing by absolute encoder
- Stepper motor with planetary gearing system
- Saving space and reducing complexity
- High performance and cost effective
- Proven and robust design



Technical features

Type:
6 port, 2 position valve

Pressure rating:
379 bar (5,500 psi)

Port threads:
10-32,
1/4-28,
5/16-18

Fitting type:
Flat

Power requirements:
1.26A 24V

Gear box ratio:
18.3:1

Motor specification:
2 phase, 1.8° step angle

Connector:
Molex 0151340606

Communication Protocol:
RS-485

*Available with PCB Step Master

Dimensions:
Height: 175 mm (6.89 in)
Width: 42.1 mm (1.66 in)
Depth: 42.1 mm (1.66 in)

Flow passage diameters:
1.3 mm (0.05 in)

Port to port volume:
Position 1: Position 2:
(1-2) 26.6 µL, (2-3) 17.8 µL,
(3-4) 12 µL, (1-6) 17.8 µL,
(5-6) 12.0 µL, (4-5) 15.0 µL

Stator port volume:
(Port 10-32) 5.5 µL,
(Port 5/16-18) 2.5 µL,
(Port 1/4-28) 11.3 µL

Rotor channel volume:
4.0 µL

Weight:
0.57 kg (1.25 lbs)

Operating temperature:
+4 ... +80°C (+39 ... +176°F)

Storage temperature:
–30 ... +80°C (–86 ... +176°F)

Storage humidity:
< 95% humidity, non-condensing

Switching time:
< 0,25s

Wetted materials:
Stator: Stainless steel
Rotor: Polyimide

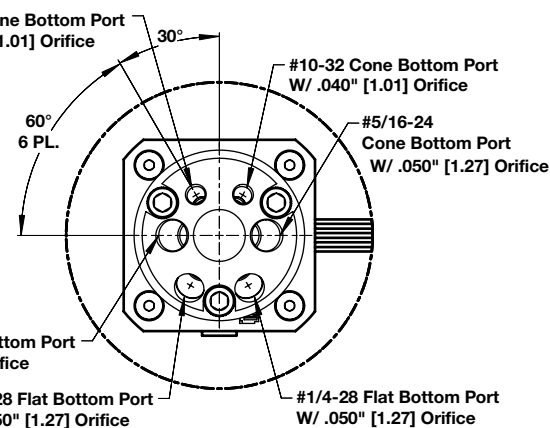
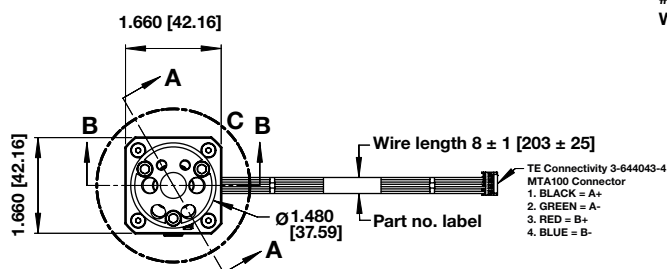
Compliance:
RoHS, REACH

Dimensions

Detail C 2:1 Scale

Dimensions in inches [mm]

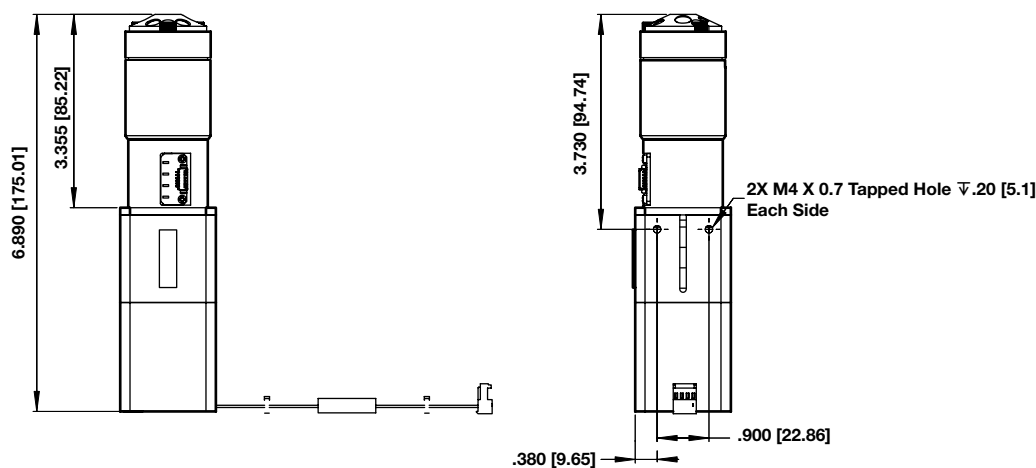
Projection/third angle



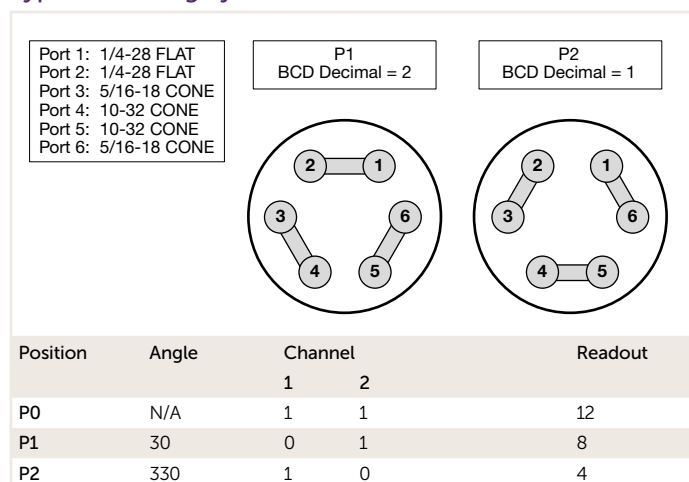
Section A-A



Section B-B

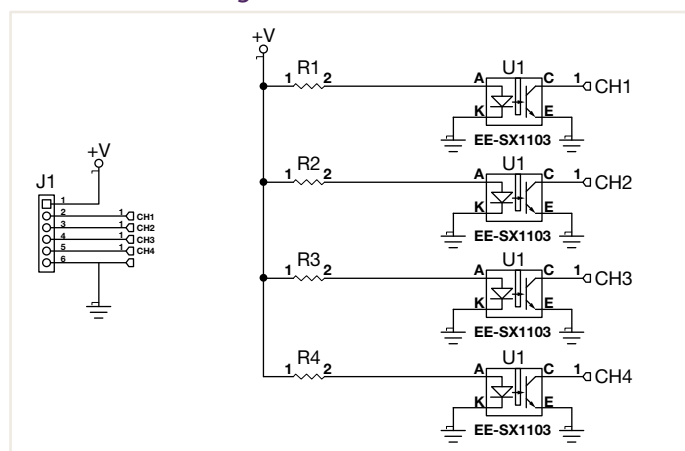


Typical working cycle



1 = BLOCKED,
0 = OPEN

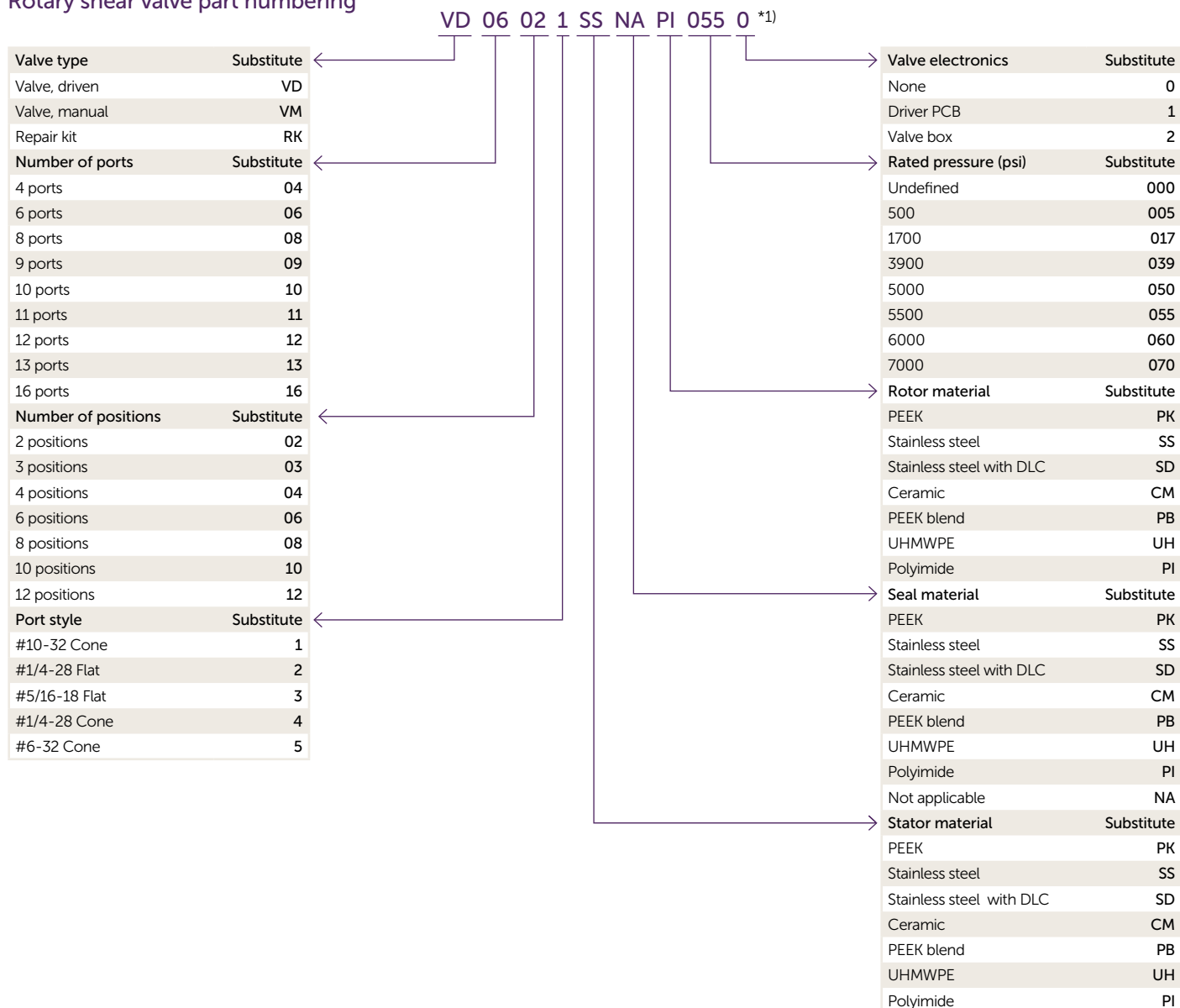
Encoder circuit diagram



Connector

Molex 0151340606

Rotary shear valve part numbering



Configurations available

Type	Operating pressure (bar)	Operating pressure (psi)	Part no. *2)
6 port, 2 position manual	483	7000	VM06021SSPKPI0700
6 port, 2 position	379	5500	VD06021SSNAPI0550
4 port, 3 position	117	1700	VD04032PKPKPK0170
8 port, 4 position	269	3900	VD08042PKPKPK0390
9 port, 8 position	117	1700	VD09082PKPKPK0170
13 port, 12 position	117	1700	VD13122PKPKPK0170
4 port shuttle valve	38	550	VD04002PKNAUH0050
Available on request:			
4 port, 2 position	269	3900	VD04022PKPKPK0390
8 port, 2 position	34	500	VD08021PKPKPK0050
Coming soon:			
VALVE BOX (6/2)	483	7000	VD06021SDNAPB0702-1
6 port, 2 position	483	7000	VD06021SDNAPB0700-1
6 port, 2 position	483	7000	VD06021SDNAPB0700-2

*2) Step Master PCB available to all models.

*1) Modifier (if needed, at the end):
 "-000" (tbd)
 "-KIT" (accessories included)