

Rotary shear valve 4 port, 3 position

VD04032PKPKPK0170

- Rated to 117 bar (1,700 psi)
- High precision position sensing by absolute encoder
- Stepper motor with planetary gearing system
- High performance and cost effective
- Saving space and reducing complexity
- Proven and robust design



Technical features

Type:
4 port, 3 position valve

Pressure rating:
117 bar (1,700 psi)

Port threads:
1/4-28 UNF-2B

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

Dimensions:
Height: 190.6 mm (7.51 in)
Width: 42.1 mm (1.66 in)
Depth: 42.1 mm (1.66 in)

Flow passage diameters:
1.5 mm (0.06 in)

Port to port volume:
P1: (4-3) 79.6 µL,
(1-C1-C2-2) 410.8 µL,
P2: (1-2 & 3-4) 101.34 µL,
P3: (1-2) 79.6 µL,
(3-C2-C1-4) 410.78 µL

Stator port volume:
(Port 1/4-28) 29.7 µL,
(Other) 299.9 µL

Seal volume:
16.2 µL

Rotor channel volume:
(1) 3.97 µL,
(2) 9.54 µL

Weight:
0.61 kg (1.34 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: PEEK
Rotor: PEEK
Seal: PEEK

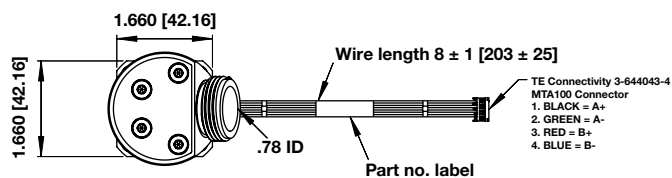
Compliance:
RoHS, REACH

*Available with PCB Step Master

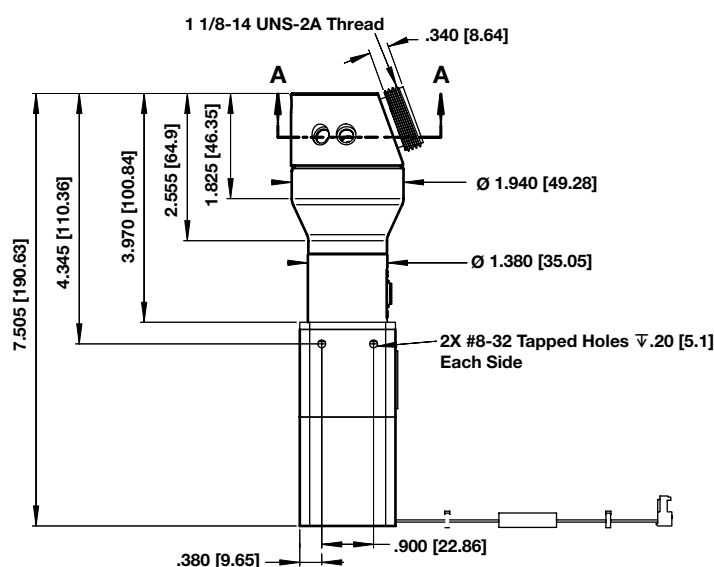
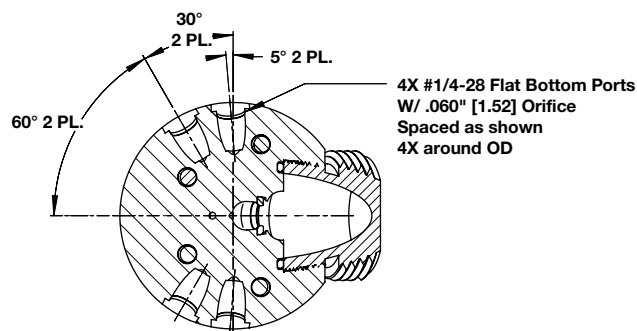
Dimensions

Dimensions in inches [mm]

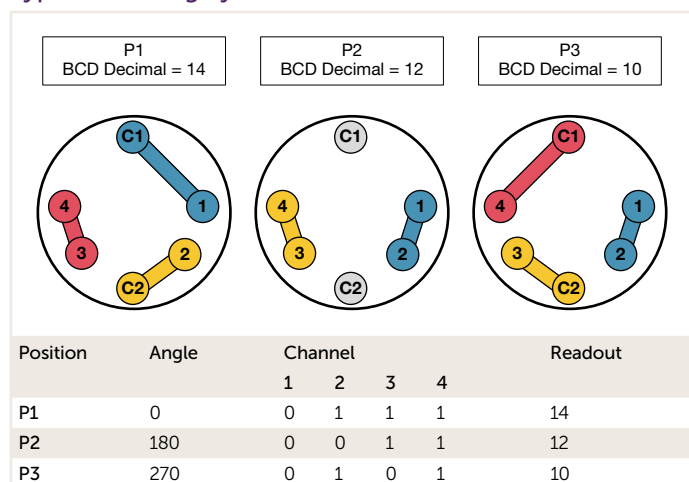
Projection/third angle



Section A-A 2:1 Scale

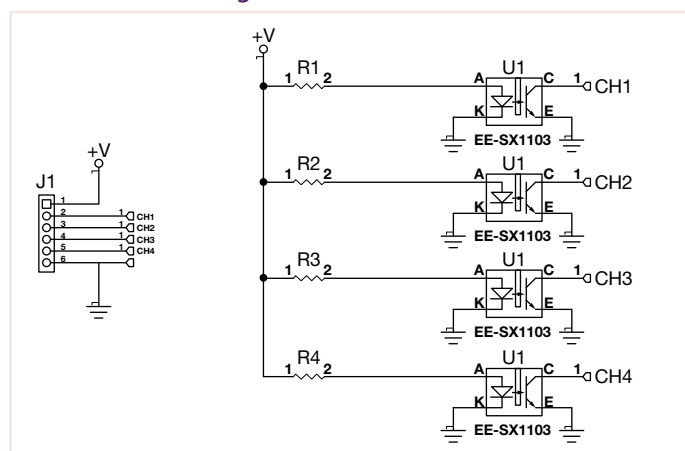


Typical working cycle



1 = BLOCKED,
0 = OPEN

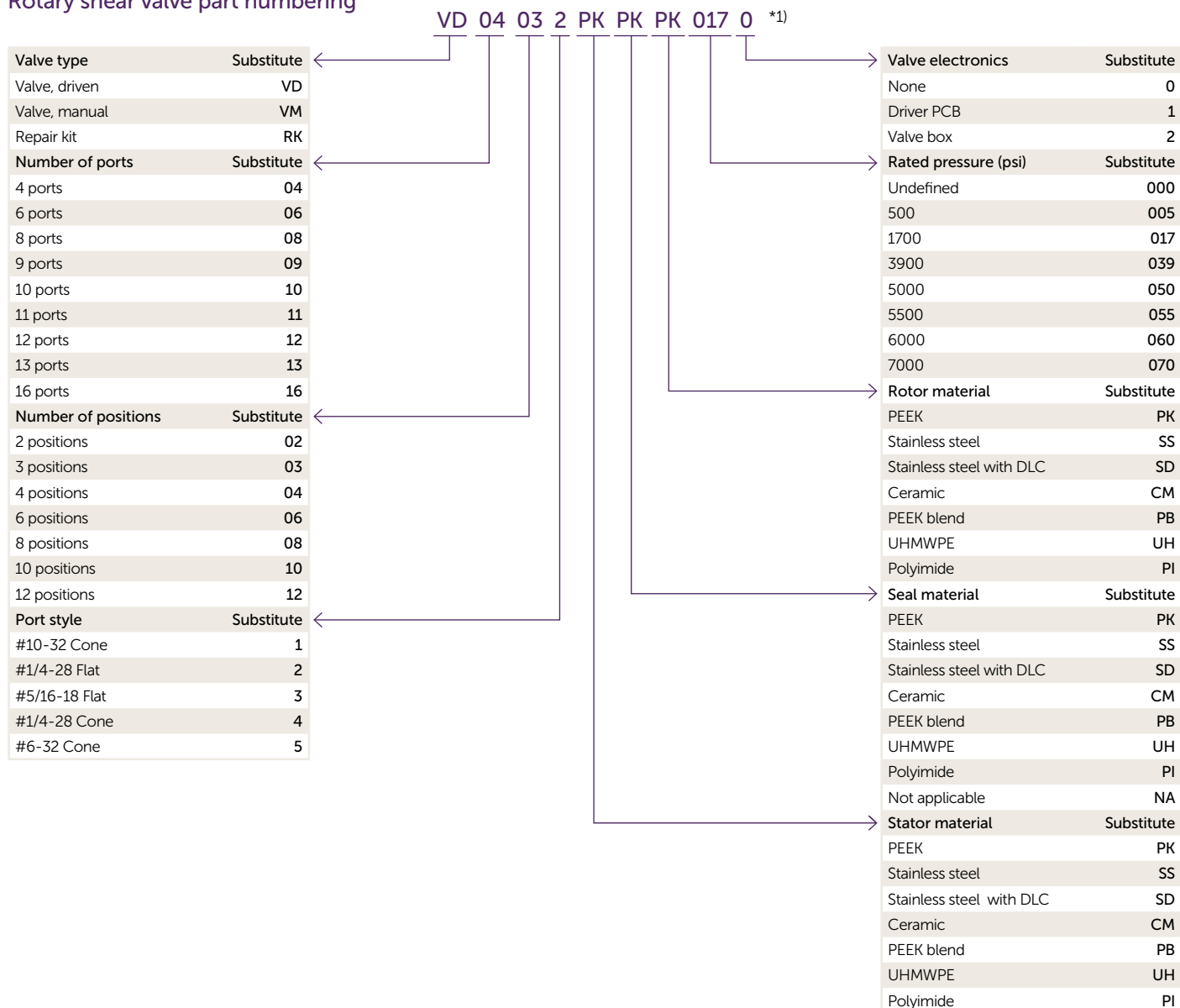
Encoder circuit diagram



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)