

→ AVAILABLE ON REQUEST

Rotary shear valve 4 port, 2 position

VD04022PKPK0390

- Rated to 269 bar (3,900 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
reverse flow valve

Pressure rating:

269 bar (3,900 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

*Available with PCB Step Master

Dimensions:

Height: 181 mm (7.13 in)
Width: 42.1 mm (1.66 in)
Depth: 42.1 mm (1.66 in)

Flow passage diameters:

1.0 mm (0.04 in)

Port to port volume:

45.1 µL

Stator port volume:

15.8 µL

Seal volume:

3.3 µL

Rotor channel volume:

6.9 µL

Weight:

0.59 kg (1.29 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

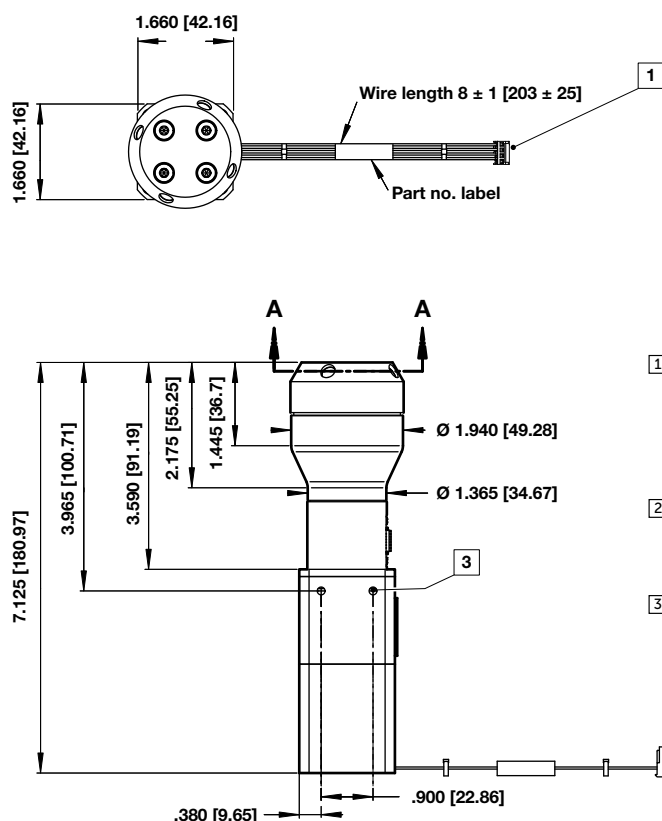
Compliance:

RoHS, REACH

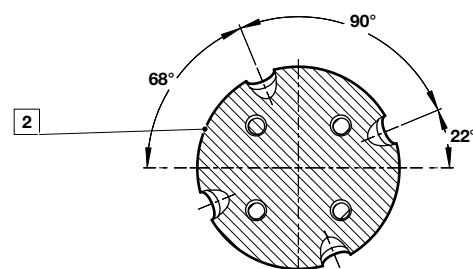
Dimensions

Dimensions in inches [mm]

Projection/third angle

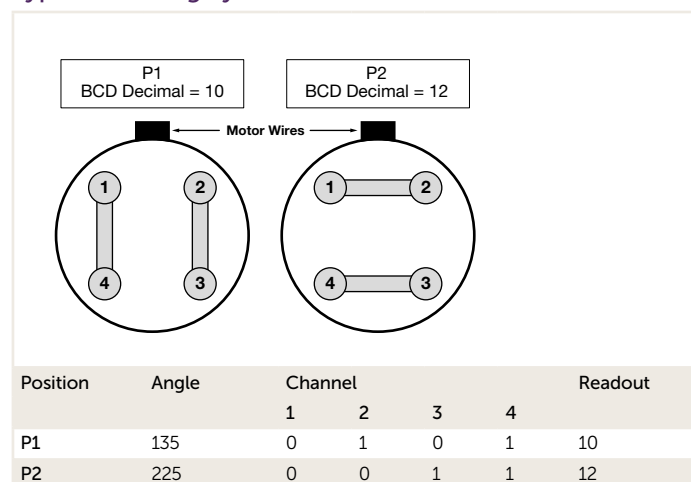


Section A-A 2:1 Scale



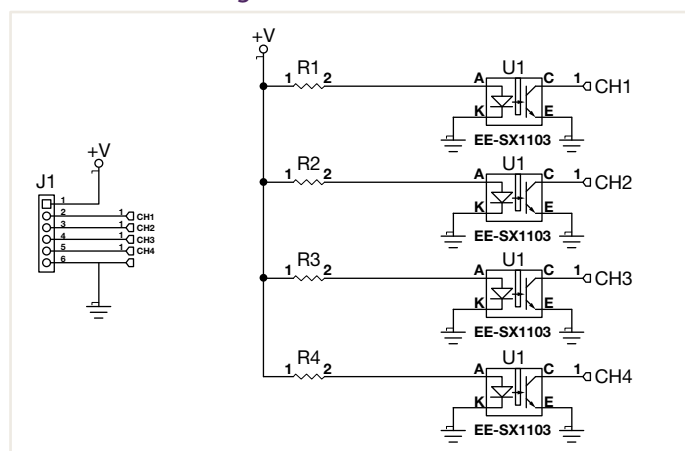
- 1 TE Connectivity 3-644043-4
MTA100 Connector
- 1. BLACK = A+
- 2. GREEN = A-
- 3. RED = B+
- 4. BLUE = B-
- 2 4x #1/4-28 flat bottom ports W/ .040" orifice
Spaced as shown
8x on angled face
1x on top of stator
- 3 Mounting holes:
2x #8-32 tapped hole ∇ .20
Near and farside

Typical working cycle



1 = BLOCKED,
0 = OPEN

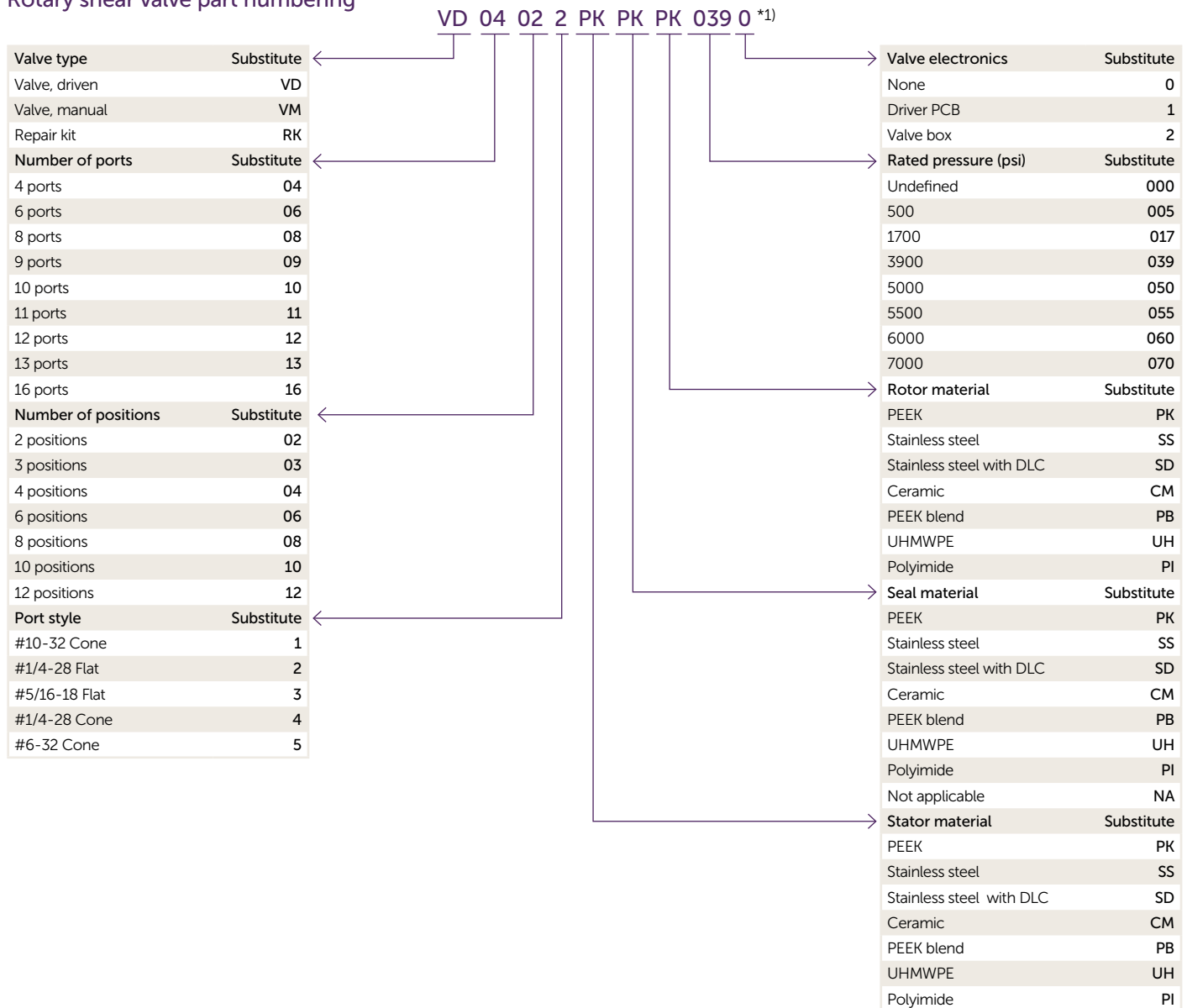
Encoder circuit diagram



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)