Product data sheet
UHV angle valve, Series 284, DN 160 (6”)
Ordering No. 28444-QE21-CQD1

Description
Flange
   ISO-K 160

Actuator
   Pneumatic, single acting with closing spring
   – without solenoid valve
   – with position indicator

Feedthrough
   Bellows

Options
   CQD = – Product: valve type ITER 21

Technical data¹

Leak rate
   – Valve body ≤ 1 · 10⁻⁸ mbar ls⁻¹
   – Valve seat ≤ 1 · 10⁻⁸ mbar ls⁻¹

Leak rate (accidental condition)
   – Valve body ≤ 1 · 10⁻⁸ mbar ls⁻¹
   – Valve seat n/a

Pressure range
   1 · 10⁻⁸ mbar to 1.5 bar (abs)

Differential pressure on the plate²
   – In opening direction ≤ 1.2 bar
   – In closing direction ≤ 1.5 bar

Differential pressure at opening
   ≤ 1 bar

Conductance (molecular flow)
   1000 ls⁻¹

Closing time
   ≤ 1.5 sec.

Cycles until first service
   (Tmax 80 °C, under clean conditions)
   10 000

Temperature
   (Maximum values: depending on operating conditions and sealing materials)
   – Valve body ≤ 150 °C
   – Actuator ≤ 120 °C
   – Position indicator ≤ 120 °C

Material
   – Valve body AISI 316L (1.4404)
   – Actuator Aluminum
   – Plate AISI 316L (1.4404)
   – Bellows AISI 316L (1.4404), AISI 316 Ti (1.4571)
   – Bonnet metal
   – Plate EPDM
   – Actuator EPDM

Seal

Weight
   14 kg / 31 lbs

Mounting position
   any

Radiation resistance
   10⁶ Gy (10⁸ rad)

Maximum magnetic field levels
   ≤ 150 mT

Volume of pneumatic actuator
   0.65l / 0.023 ft³

Compressed air
   min. – max. overpressure
   4.5 – 7 bar / 65 – 102 psi

Compressed air connection
   1/8” female ISO/NPT

¹ Values according to technical specification D_R8752R v.1.1
² Deviation to technical specification D_R8752R v.1.1 in agreement with responsible IO department
Behavior in case of compressed air pressure drop

- Valve closed
- Valve open
- During actuation

valve remains closed and leaktight
valve closes leaktight
valve closes leaktight

Behavior in case of power failure

- Valve closed
- Valve open
- During actuation

depending on customer installation
depending on customer installation
depending on customer installation

Assembly cleanliness level

ISO Class 8

Related documents

Dimensional drawing No. 856883
STEP file No. 856882

Electrical connections

Position indicator

Type: Micro switch
Voltage: ≤ 50 V AC / DC
Current: 5 – 100 mA
Short circuit protected: No
Male plug (VAT valve): 4 pin
Female connector (ITER) \(^a\): 8070-2201-01Z16-4SA (Glenair)

\(^a\) Not included with delivery