



2013-10



Actuator Type S - Technical Data, Summary Size 3, 5 and 10



TruTorq actuators are pneumatic quarter turn actuators based on double rack and pinion design.

The S-type actuator is generally recommended to “small” Ball valves and Plug valves.

Material, standard (outside)

- Anodized Aluminum, Black

Movement

- 0° to 90°

End Stop Adjustment

Single End Stop Adjustment, Open position, located in the End Cap

Over travel

- Open: 3°
- Closed: 0° to 0.5°
- Note! If the actuator is assembled Fail Open (FO), the over travel will be the opposite, ie.
Open: 0° to 0.5°
Closed: 3°

Sizes

- 3, 5 and 10

Torque

Linear torque, ie a Double Acting (DA) Actuator has the same torque over the entire movement

Torque Output, Double Acting (DA) at 6 bar/80 psi

- 23 to 101 Nm
- 192 to 827 in.lbs

Torque Output, Spring Return (SR) at 6 bar/80 psi

- 8 to 40 Nm
- 64 to 328 in.lbs

Operating Pressure

- DA: 2-10 bar / 30-145 psi
- SR: 2-10 bar / 30-145 psi. When the Actuators will be used at Operating pressures below 5.5 bar / 79.8 psi, we recommend that you contact your TT distributor.



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Drive Medium

- Standard: Air (Dry or Lubricated) or inert gases (non-dangerous fluids)

Temperature Range, Standard execution (Buna Nitrile, NBR O-seals)

- - 30° to + 80°C
- - 22° to + 175°F

Temperature Range, High temperature (Viton O-seals)

- - 20° to + 140°C
- - 4° to + 284°F

Temperature Range, Low temperature

- -45° to +60°C
- -49° to +140°F

Temperature Range, Arctic temperature

- -50° to +60°C
- -58° to +140°F

Stroke, Double Acting (DA)

Looking at the front of the Actuator, Port A is on the left side and Port B on the right

Port A: Air to Open (Anti-clockwise)

Port B: Air to Close (Clockwise)

Stroke, Spring Return (SR)

Port A: Air to Open (Anti-clockwise, compressing springs)

Port B: Exhaust Port

Setting from the factory: Fail close (FC), clockwise closing. To change to Fail Open (FO): see separate instructions

Max number of springs

A Spring Kit consists of 12 single springs placed in a circle between the Pistons and End Caps. To adjust for different Air Pressure; reduce the number of springs.

Drive shaft

Stardrive shaft tailored to international standard for square-section shafts.

Standard Connections

Solenoid valves – Namur

Fitting accessories – ISO 5211, DIN 3337, Namur

Stardrive shaft – ISO 5211 (90°), DIN 79 (45°), Namur

Lubricants, recommended

Springs and piston rack segments: Statoil Molyway LI 712 or similar

O-rings and plastic parts: Statoil Uniway LIX 42PA or similar

Standards and Certificates

The Actuators are designed to and in compliance with several different standards. They also have different types of certificates, see separate information.