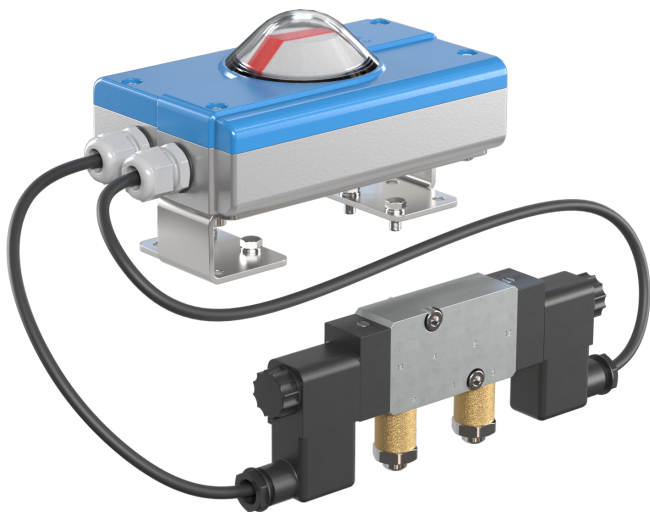


Positioner PS01



description:

This positioner is an electro-pneumatic positioner and at the same time a 3-position control unit specially designed for pneumatic quarter-turn actuators. The position is controlled via special control valves that are attached to the NAMUR interface.

product features:

- control of the valve position via visual position indicator
- model selection via selector switch: change between positioning and 3-position mode possible
- signal type selectable between 4-20 mA or 0-10V
- incl. mounting bracket, solenoid valve group & cable connections
- can be installed in any position

version:

double acting, double acting with safety function, single acting

control pressure:

2,5 bar till 8,0 bar

temperature:

-10°C - +50°C

body material:

Aluminium die casting GD – AISi 10 Mg

sight glas material:

PMMA

light guide material:

TPE

cable connection material:

PA

screw material:

stainless steel A2-70

swivel angle:

0-180°

protection class:

IP65

flow rate:

small-version: 400 l / min and midi-version: 1250 l / min

ambient temperature:

-10°C to +50°C

ambient humidity:

10-90%, non-condensing

analoge control signal:

operating direction: reversible with side switch

signal type: either 4-20 mA or 0-10 V, protected against polarity reversal

burden: > 1 kOhm for 0-10 V; <500 Ohm for 20 mA

+/- 2% from nominal swivel angle

adjustment via throttles on solenoid valves

signal type: either 4-20 mA or 0-10 V, protected against polarity reversal

resolution: < 0,5% of nominal swivel angle

voltage: 22-24 VDC, design: optocoupler short-circuit

1 kOhm series- and 10 kOhm parallel resistor installed

3 % of nominal swivel angle before initiated end position

24 VDC (21-28 VDC), protected against polarity reversal

clamping area to 0,75 mm²

7 to 13 mm, 0,5 mm²

for OPEN/CLOSE valves / <10 V for „0“; / >18 V for „1“

filtered air according to DIN ISO 8573-1:2010 [7:-:4]

according to VDI/VDE 3845

version „Small“: 1/8" inch

version „Midi“: 1/4" inch

dead band:

control speed:

position feedback:

end position:

report:

supply:

terminal block:

cable to PLT:

binary input signals:

air quality:

flange image:

connection Namur-Vantil:

Advantages:

advantage:	description:
simple installation	All required materials are included in the scope of delivery. Installation with just 6 screws. No hosing or pipework necessary.
swivel angle 0 to 180°	Almost all areas of application are covered by the large swivel angle
standard output signals open/closed & position feedback	The device includes signals for open/close feedback & an analog position signal
Automatic initialisation	During initialisation, the positioner learns all the essential characteristic values and is immediately ready for use.
Adapted flow rate of the solenoid valves to the actuator volume	Different flow rates can be generated by simply replacing the pneumatic assembly. This allows the actuating speed and control behaviour to be adapted to the volume of the quarter turn actuator.
No air consumption in the regulated state	No control medium is consumed in the regulated state. The valve remains locked in position via the compressed air locked in the chamber volume of the quarter-turn actuator.
Wear-free optical rotation angle detection	Integrated optical rotation angle detection works without contact and is therefore absolutely wear-free.
Visual position indicator with position indicator and LED	Constant visual control of the valve position thanks to the clearly visible position indicator. The operational readiness, end- and intermediate positions are also signalled via LED displays in 3-position mode.
Direct solenoid valve attachment to swivel drive	There is no need for complex compressed air hoses or pipework. Switching the control medium directly on the actuator avoids additional air volume. This improves the control characteristics and the smaller number of interfaces reduces the risk of leaks.
Mode selection via integrated selector switch	Change between positioning and 3-position mode possible. The 3-position function enables a conventional 2-position actuator to be moved to a freely selectable intermediate position in addition to the two end points. This requires only a binary 24 V signal rather than a complex analog signal.
Signal type freely selectable	The type of analog output and input signals can be easily adjusted and changed between 4-20 mA or 0-10V using a selector switch.
Integrated speed control	The valve's actuating speed can be adjusted via the integrated flow restrictors. The opening and closing speeds can also be set independently of each other.
Simple on-site actuation in the event of power/signal failure	The manual actuation buttons available on the pneumatic assembly enable convenient on-site actuation in the event of a power and signal failure.
Installation on all actuators with interface according to VDI/VDE 3845 (NAMUR)	Installation also possible for other pneumatic quarter-turn actuators. The mounting bracket is supplied pre-assembled in the corresponding version.

