

Position controller CMSX for quarter turn actuators

FESTO



Reliable position control

Highlights

- Very economical, excellent price/performance ratio
- Energy-efficient and inexpensive in operation
- Feedback signals as standard
- Predefinable safety positions for emergency stop

As an inexpensive and reliable position controller the CMSX for double-acting quarter turn actuators comes into its own in non-explosive areas. Its extra features include excellent price/performance ratio, energy-efficient operation, high process reliability thanks to analogue and digital feedback signals and definable safety positions.

Feedback signal as standard

The end position can be flexibly defined via the freely configurable analogue signal (0 ... 10 V; 0 ... 20 mA; 4 ... 20 mA). The actual position is detected by a potentiometer and displayed continuously on the micro-controller of the position controller as a feedback signal.

Controlled positioning operation

The positioner operates in closed-loop mode to continuously compare the setpoint signal with the actual position of the quarter turn actuator. Any deviations automatically trigger an error message and the emergency stop.

Predefinable switching position

A safety position can be pre-defined for a process valve (close, open, hold) in case of a power failure. This unique feature of the position controller reduces incalculable risks in the production process to a minimum.

Naturally energy-efficient

When it is at a standstill, the compressed air consumption of the valve actuator is zero.

CMSX = Highest performance for the best possible price

Position controller CMSX for quarter turn actuators

Economical: position controller CMSX for quarter turn actuators

The CMSX operates in closed-loop to control double-acting quarter turn actuators which actuate butterfly and ball valves with an angle of rotation of 0 ... 110°. The two integrated inlet and outlet valves are controlled by pulse width modulation PWM (also known as pulse duration modulation PDM). The flow rate for the controlled

pneumatic actuator of the process valve can be up to 100 l/min. At standstill, the compressed air consumption is zero.

The analogue feedback signal and the definable safety positions are unique for a position controller in this inexpensive price class.

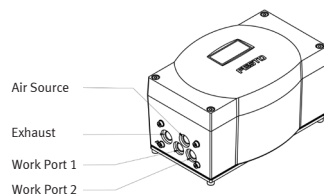


CMSX in a water application

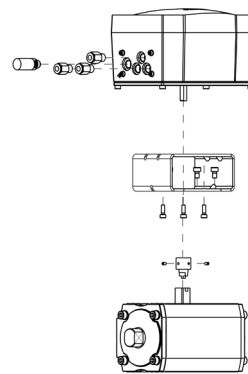
Can be used in many industries

General applications in process automation

- Food and beverage industry
- Water/wastewater treatment
- Paper manufacture
- Pharmaceutical industry



The CMSX as a stand-alone unit



Example of mounting: CMSX on quarter turn actuator DFPB

Design

- [S] Positioner, path/angle measurement integrated

Mechanical interface

- [A1] 30 x 80 mm hole pattern

Display type

- [C] LCD, backlit

Setpoint value

- [U] Configurable (0 ... 10V/0 ... 20 mA/4 ... 20 mA)

Position feedback

- [F1] 4 ... 20 mA

Function

- [D] Double-acting

Safety function

- [A] Opening or closing in the event of a system crash
- [C] Maintain position in the event of a system crash

| Technical data | |
|------------------------------------|--------------------------------------|
| Input signal | 0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V |
| Feedback signal, standard | 4 ... 20 mA |
| Pressure range | 3 ... 8 bar |
| Operating temperature | -5 ... 60 °C |
| Rotation angle | 0 ... 110° |
| Protection | IP65 |
| Repetition accuracy | ±3% |
| Compressed air consumption at rest | 0 l/min |
| Flow rate | 100 l/min (P = 6 bar) |
| Housing material | Technical polymer |

Festo AG & Co. KG

Ruiter Strasse 82
73734 Esslingen
www.festo.com
Tel. +49 711 347-0
Fax +49 711 347-2144
service_international@festo.com
www.festo.com