

Flucon, India's only company who manufactures
full range of Valve Automation Products
Process Control Instruments
Valve Automation



Smart Positioner

Series FC900, FC900EX



Description

The Flucon FC900 series of Smart Electro-Pneumatic Valve Positioners are used adjust and control pneumatic valves & actuators.

FC900 Smart Positioners are microprocessor based technology. It can overcome friction and control pneumatic valves and actuators precisely.

FC900 are not only able to completely substitute conventional valve positioners, but also able to communicate on HART, network & characteristics.

FC900 series of Smart Electro-Pneumatic positioners are built especially for outdoor use in potentially hazardous atmosphere.

FC900 series of Smart Electro-Pneumatic positioners have standard rugged die-cast aluminum housing. The products housing is weather sealed for outdoor use and comply with NEMA 4X requirements for protection against corrosion. FC900 series of Smart Electro-Pneumatic positioners are available with numerous environment ratings ingress protection and NEMA, flame-proof, explosion-proof and intrinsically safe area applications.

Integrated Characteristic

- Positioning Precision: 0.5% of full span.
- Intrinsically safe, Explosion-proof, secure and reliable performance.
- Small and compact design, modular construction.
- Automatic initialization/auto tuning, automatic diagnosis, valve characteristic.
- Less mechanical parts, good vibration resistance performance
- Local or remote parameters configuration.
- Low power consumption and almost 0 air consumption at static status, which save operation cost for customers.
- Using 4~20mA standard signal.
- Surge protection / Lightning protection circuit.

Technical Specification

| | | |
|------------------|---------------------------------|--|
| Pneumatic | Pressure | 0.14-0.7 MPa |
| | Valve Leakage | < 0.6 L / H |
| | Air consumption in stable state | < 36 L / H |
| | Air quality | According to ISO 8573.1 Size and density of particulates: Class 2 Oil concentration: Class 2 Dew point: Class 2 or at least 10K below surrounding environment |
| Input Output | Actuator | Single acting, double acting |
| | Travel range | Linear: 10-100mm; Rotate: 30-120° |
| | Input current | 4-20mA DC, Minimum input current: >3.6mA, split range start and end point adjustable |
| | Feedback output | 4-20mA DC |
| | Switch input | 1 dry contract |
| | Switch output | 2 electronic switch: 2 channel |
| | Piezo valve life | Mean time between failure >2 billion cycles |
| | Output characteristic | Linear, 1:25, 1:33, user defined (20 points) |
| Communication | HART | |
| Display | LCD | 2 x 7 digitals, dimension: 22 x 38mm |
| | Pressure gauge | Optional, displaying the in and out pressure |
| Operation | Self tuning | automatic calibrate the Zero and Span, dead band |
| | Self diagnose | show the value of input current, travel time, dead band, etc. |
| | Manual | 3 keys on the front panel |
| Precision | Dead band | 0.1-10% adjustable |
| | Linearity | 0.5% F.S. |
| | Sensitivity | 0.1% F.S. |
| | Repeatability | 0.2% F.S. |
| Environment | Temperature | Non intrinsically: -35°C to +85°C Intrinsically safe: T6 -35°C to +40°C, T5 -35°C to +55°C T4: -35°C to +80°C |
| | Humidity | 5-95%RH |
| | Vibration Resistance | 15 - 150Hz/2g |
| | Proof Level | IP65 |
| | Explosion proof | Ex is IIC T4-T6 |
| Surge Protection | Max peak current | 10kA |
| | Max peak voltage | 20kV |
| | Respond time | wire-wire: < 4ns, wire-ground: < 20ns |
| Appearance | Weight | 2.0 kg |
| | Dimension | 170 x 96 x 96 mm |
| | Shell material | Aluminum alloy |

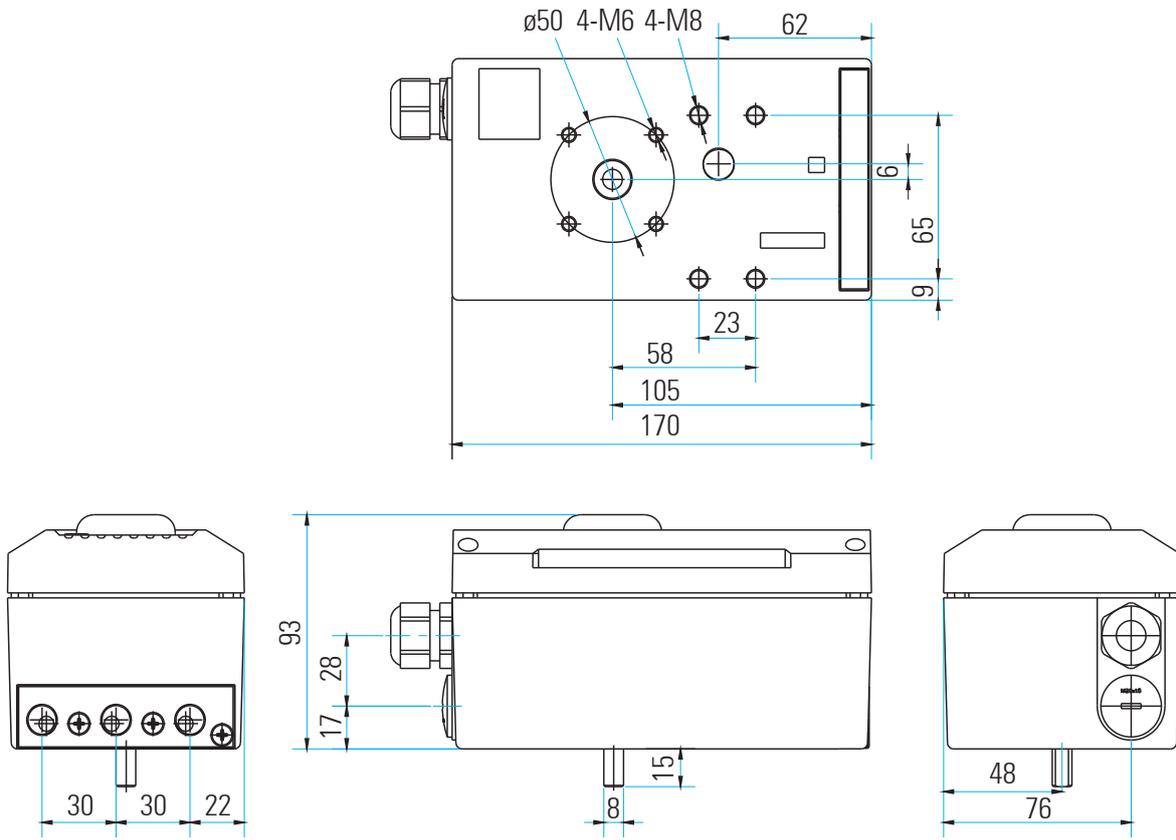
Ordering Information

| | | |
|--|--|--|
| Model Selection | FC 900 |  |
| Actuator Type | Linear | L |
| | Rotary | R |
| Acting Type | Single Acting | S |
| | Double Acting | D |
| Protection Type | Intrinsically Safe | 0 |
| | Exia II CT4-T6 | E |
| | | |
| Electrical Connection | M20 X 1.5 | 1 |
| | ½" NPT | 2 |
| Pneumatic Connection | G ¼" | G |
| | ¼" NPT | N |
| Pressure Gauges with block | Without | 0 |
| | With Gauges | 1 |
| Mounting Brackets | Without | N |
| | With Mounting Brackets | M |
| Position Transmitter/Feed Back | Without | 0 |
| | 4-20 mA Dc Feed Back | T |
| Position Switch / Limit Switch Output | Without | 0 |
| | 2 Micro Switch | M |
| | 2 Digital Switch | D |
| | 4 Position Switches 2 Micro + 2 Digital | C |
| External Indicator | No Indicator | N |
| | Dom Indicator | D |
| Communication Type | Without | 0 |
| | Hart Comm. | H |
| | Other | N |
| Fail Mode | Fail Safe | 0 |
| | Fail Freeze | 1 |

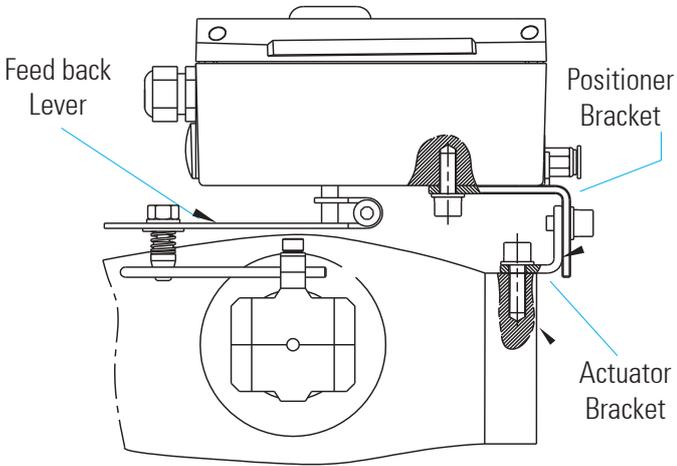
Features : 1 Fail Freeze is Standard Function.

2 Piezo based Design means high reliability & Low Air Consumption and Long Life.

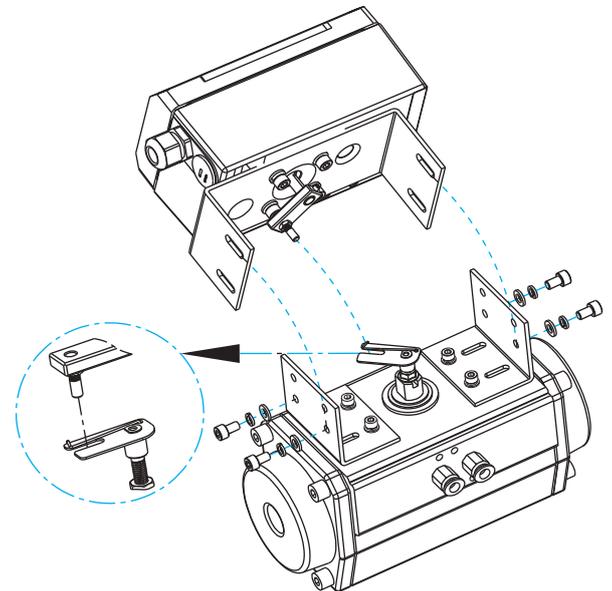
Dimensional Drawings FC900 (mm)



Installation on a Linear actuator



Installation on a Rotary actuator



Flucon Automation Inc.

USA: 903 Dashiell Street, Murfreesboro, TN 37129 USA • T +1-615 893 2668 | M +1 615 785 9040, +1 615 785 9023

India: E-104-05, GIDC, Electronics zone, Sector-26, Gandhinagar-382 026 India • T +91-79-2328 8531 / 32 | M +91-98250 49522

sales@fluconautomationinc.com | fluconautomationinc.com