

# Valve positioners

## CMSX-P-S-C-U-F1-D-130-A

Part number: 3929312

**FESTO**



## Data sheet

| Feature                                        | Value                                                                                                       |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Material of screws                             | High-alloy stainless steel                                                                                  |
| Shaft material                                 | High-alloy stainless steel                                                                                  |
| Analog outputs, resolution                     | 12 bit                                                                                                      |
| Analog inputs, overload protection             | yes                                                                                                         |
| Analog inputs, resolution                      | 16 bit                                                                                                      |
| Digital inputs, electrical isolation           | Yes, optocoupler                                                                                            |
| Analog inputs, galvanic isolation              | no                                                                                                          |
| Digital outputs, output current                | 100 mA                                                                                                      |
| Vibration resistance                           | Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6<br>as per EN 60068-2-6 |
| Approved cable diameter                        | 7-13 mm for electrical connection 1                                                                         |
| Contamination level                            | 3                                                                                                           |
| Quick-coupling material                        | High-alloy stainless steel                                                                                  |
| Switching input                                | PNP<br>NPN                                                                                                  |
| Display                                        | 7-segment<br>LCD display<br>With backlighting                                                               |
| Analog outputs, galvanic isolation             | no                                                                                                          |
| Relative air humidity                          | 93 %                                                                                                        |
| Blanking plug material                         | PA                                                                                                          |
| Mounting position                              | Any                                                                                                         |
| Electrical connection 1, connection type       | Terminal strip                                                                                              |
| Mode of operation                              | Double-acting                                                                                               |
| Switching output                               | 3 x PNP or 3 x NPN switchable                                                                               |
| Analog inputs, signal range                    | 0 - 10 V<br>0 - 20 mA<br>4 - 20 mA                                                                          |
| Digital outputs, short circuit current rating  | yes                                                                                                         |
| Analog outputs, reverse polarity protection    | yes                                                                                                         |
| Digital outputs, potential separation          | Yes, optocoupler                                                                                            |
| Electrical connection 1, connection technology | Screw terminal                                                                                              |
| Inspection window material                     | PC                                                                                                          |
| Max. cable length                              | 30 m for electrical connection 1                                                                            |
| Analog outputs, short-circuit protection       | yes                                                                                                         |
| Analog inputs, linearity error at 25°C         | 0.5%                                                                                                        |
| Analog outputs, overload protection            | yes                                                                                                         |

| Feature                                          | Value                                                                                                       |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Analog outputs, linearity error at 25°C          | 0.5%                                                                                                        |
| Digital outputs, reverse polarity protection     | yes                                                                                                         |
| Dimensions W x L x H                             | 190 mm x 105 mm x 130 mm                                                                                    |
| Electrical connection 1, function                | 2x digital input<br>3x digital output<br>Analog output<br>Analog input<br>Power supply<br>Load power supply |
| Shock resistance                                 | Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27<br>as per EN 60068-2-29               |
| Design                                           | digital, electropneumatic positioner                                                                        |
| Digital inputs, reverse polarity protection      | yes                                                                                                         |
| Analog outputs, signal range                     | 4 - 20 mA                                                                                                   |
| Base plate material                              | Wrought aluminum alloy<br>Anodized                                                                          |
| Digital outputs, overload protection             | yes                                                                                                         |
| Input characteristics                            | As per IEC 61131-2, type 3                                                                                  |
| Design features                                  | Safety position – pneumatic outlet 4 exhausted<br>Safety position – pneumatic outlet 2 exhausted            |
| Analog outputs, temperature coefficient          | <0.02 %FS/K                                                                                                 |
| Electrical connection 1, tightening torque       | 0.6 Nm                                                                                                      |
| Analog inputs, temperature coefficient           | <0.02 %FS/K                                                                                                 |
| Analog outputs, max. load resistance             | ≤600 Ohm                                                                                                    |
| Max. current consumption                         | 600 mA                                                                                                      |
| Nominal operating voltage DC                     | 24 V                                                                                                        |
| Electrical connection 1, conductor cross section | <1.5 mm <sup>2</sup>                                                                                        |
| Electrical connection 1, number of pins/wires    | 14                                                                                                          |
| Type code                                        | CMSX                                                                                                        |
| Reverse polarity protection                      | for operating voltage connections                                                                           |
| Setting options                                  | Via display and pushbuttons                                                                                 |
| Measuring principle of linear potentiometer      | Potentiometer                                                                                               |
| Operating pressure                               | 3 bar ... 8 bar                                                                                             |
| DC operating voltage range                       | 21.6 V ... 26.4 V                                                                                           |
| Size of dead space                               | 0.5 % ... 10 %                                                                                              |
| Certification                                    | RCM compliance mark                                                                                         |
| Operating medium                                 | Compressed air as per ISO 8573-1:2010 [7:4:4]                                                               |
| Information on operating and pilot media         | Operation with oil lubrication not possible                                                                 |
| CE marking (see declaration of conformity)       | As per EU EMC directive<br>As per EU RoHS directive                                                         |
| Degree of protection                             | IP65                                                                                                        |
| Ambient temperature                              | -5 °C ... 60 °C                                                                                             |
| Cable fitting                                    | M20 x 1.5 for electrical connection 1                                                                       |
| Type of mounting                                 | With accessories                                                                                            |
| Product weight                                   | 970 g                                                                                                       |
| Pneumatic connection                             | G1/8                                                                                                        |
| Standard nominal flow rate                       | 130 l/min                                                                                                   |
| Note on materials                                | RoHS-compliant                                                                                              |
| Housing material                                 | PC-reinforced                                                                                               |
| Seals material                                   | NBR                                                                                                         |
| Material for cable connector                     | PA                                                                                                          |
| Storage temperature                              | -20 °C ... 60 °C                                                                                            |