# Positioner
# CMSX-P-SE-C-U-F1-S-130-A

Part number: 8171509



## Data sheet

| Feature | Value |
|---|---|
| Structural design | digital, electropneumatic positioner |
| Mode of operation | Single-acting |
| Design features | Safety position – pneumatic outlet 4 exhausted |
| Mounting position | Any |
| Type of mounting | With accessories |
| Measuring principle of linear potentiometer | Potentiometer |
| Display | 7-segment<br>LCD display<br>With backlighting |
| Size of dead space | 0.5 %...10 % |
| Operating pressure | 0.3 MPa...0.8 MPa<br>3 bar...8 bar<br>43.5 psi...116 psi |
| 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<br>Maximum particle size 40 µm |
| Normal nominal flow rate (normalized to DIN 1343) | 130 l/min |
| Pneumatic connection | G1/8 |
| Nominal operating voltage DC | 24 V |
| DC operating voltage range | 21.6 V...26.4 V |
| Max. current consumption | 600 mA |
| Reverse polarity protection | for operating voltage connections |
| Connection resistance | 80 kOhm |
| Analog inputs, signal range | 0 - 10 V<br>0 - 20 mA<br>4 - 20 mA |
| Analog inputs, max. dynamic range | 0 - 24 mA<br>0 - 11 V |
| Analog inputs, linearity error at 25°C | 0.5% |
| Analog inputs, temperature coefficient | 0.02 %FS/K |
| Analog inputs, resolution | 16 bit |
| Analog inputs, overload protection | Yes |
| Analog inputs, galvanic isolation | No |
| Analog outputs, signal range | 4 - 20 mA |

| Feature | Value |
|---|---|
| Analog outputs, max. load resistance | 600 Ohm |
| Analog outputs, linearity error at 25°C | 0.5% |
| Analog outputs, temperature coefficient | 0.02 %FS/K |
| Analog outputs, resolution | 12 bit |
| Analog outputs, reverse polarity protection | Yes |
| Analog outputs, short-circuit protection | Yes |
| Analog outputs, overload protection | Yes |
| Analog outputs, galvanic isolation | No |
| Input characteristics | As per IEC 61131-2, Type 3 |
| Digital inputs, reverse polarity protection | Yes |
| Digital inputs, electrical isolation | Yes, optocoupler |
| Digital outputs, reverse polarity protection | Yes |
| Switching output | 3 x PNP or 3 x NPN switchable |
| Digital outputs, output current | 100 mA |
| Digital outputs, short circuit current rating | Yes |
| Digital outputs, overload protection | Yes |
| Digital outputs, potential separation | Yes, optocoupler |
| Electrical connection 1, function | 3x digital output<br>Analogue output<br>Analog input<br>Digital input<br>Power supply<br>Load voltage supply |
| Electrical connection 1, connection type | Terminal strip |
| Electrical connection 1, connection technology | Screw terminal |
| Electrical connection 1, number of pins/wires | 13 |
| Electrical connection 1, tightening torque | 0.6 Nm |
| Electrical connection 1, conductor cross section | 1.5 mm² |
| Electrical connection 2, function | External path/angle sensor |
| Electrical connection 2, connection type | Terminal strip |
| Electrical connection 2, connection technology | Screw terminal |
| Electrical connection 2, number of pins/wires | 3 |
| Electrical connection 2, tightening torque | 0.6 Nm |
| Electrical connection 2, conductor cross section | 1.5 mm² |
| Cable fitting | M12 x 1.5 for electrical connection 2<br>M20 x 1.5 for electrical connection 1 |
| Approved cable diameter | 3-6.5 mm for electrical connection 2<br>7-13 mm for electrical connection 1 |
| Max. cable length | 3 m for electrical connection 2 |
| Ambient temperature | -5 °C...60 °C |
| Storage temperature | -20 °C...60 °C |
| Relative air humidity | 5 - 95%<br>Non-condensating |
| Degree of protection | IP65 |
| Corrosion resistance class (CRC) | 2 - Moderate corrosion stress |
| 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 |
| 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 |
| Certification | RCM compliance mark |
| CE marking (see declaration of conformity) | As per EU EMC directive<br>As per EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions |
| Housing material | Reinforced PC |

| Feature | Value |
|---|---|
| Base plate material | Wrought aluminum alloy, anodized |
| Shaft material | high-alloy stainless steel |
| Quick-coupling material | high-alloy stainless steel |
| Material of screws | high-alloy stainless steel |
| Seals material | NBR |
| Material for cable connector | PA |
| Blanking plug material | PA |
| LABS (PWIS) conformity | VDMA24364-B2-L |
| Note on materials | RoHS compliant |
| Product weight | 970 g |
| Dimensions W x L x H | 190 mm x 105 mm x 130 mm |