

# Positioner CM SH-S-VDE1-D-C-AL-G14-C1M20-HA-V2

FESTO

Part number: 8186700



[PDF General operating condition](#)

## Data sheet

| Feature                                       | Value  |
|---|--|
| Design  | Digital, electropneumatic positioner                             |
| Mode of operation                             | Double-acting  |
| Design characteristics                        | Safety position - pneumatic outlets closed                       |
| Mounting position                             | optional   |
| Type of mounting                              | With accessories<br>To VDI/VDE 3845                              |
| Functional principle of measuring system      | Potentiometer  |
| Sensing range                                 | 0 deg ... 115 deg  |
| Display                                       | LCD display, via software 90° rotatable                          |
| Setting options                               | Via display and keys   |
| Cycle time                                    | 20 ms  |
| Nominal altitude of use                       | <= 2000 m NHN  |
| Oversupply category                           | II   |
| Operating medium                              | Compressed air to ISO 8573-1:2010 [7:4:4]                        |
| Note on operating and pilot medium            | Lubricated operation not possible<br>Maximum particle size 40 µm |
| Air flow rate at Δp = 6 bar                   | 270 l/min  |
| Pneumatic connection                          | G1/4   |
| Reverse polarity protection                   | yes  |
| Connection resistance                         | 3 kOhm ... 80 kOhm   |
| digital input, signal range                   | 4 - 20 mA with HART  |
| Analogue inputs, input impedance              | 480 ohm at 20 mA   |
| Analog inputs, overload protection            | <65 mA   |
| Analogue inputs, electrical isolation         | yes  |
| digital output, signal range                  | 4 - 20 mA  |
| Analogue outputs, functional principle        | Regulated power source with external supply                      |
| Analogue outputs, supply voltage              | 24 V   |
| Analogue outputs, reverse polarity protection | yes  |
| Analog outputs, short circuit current rating  | yes  |
| Analog outputs, overload protection           | yes  |
| Analogue outputs, galvanic isolation          | yes  |
| Characteristic for inputs                     | 2x to IEC 61131-2, type 3  |
| Digital inputs, reverse polarity protection   | yes  |
| Digital inputs, electrical isolation          | yes  |
| Digital inputs, overload protection           | 33 V   |
| Switching output                              | 2x to IEC 60947-5-6 or 2x to DIN EN 61131-2 type 2, switchable   |

| Feature  | Value  |
|--|--|
| Digital outputs, supply voltage                      | 8.2 V<br>24 V  |
| Digital outputs, short circuit current rating        | yes  |
| Digital outputs, overload protection                 | Yes, <30 V   |
| Digital outputs, electrical isolation                | yes  |
| Electrical connection 1, function                    | Analogue input<br>Digital input<br>External path/angle sensor  |
| Electrical connection 1, connection type             | Terminal strip   |
| Electrical connection 1, connector system            | Spring-loaded terminal   |
| Electrical connection 1, number of connections/cores | 7  |
| Electrical connection 2, function                    | 2x digital output<br>Analogue output<br>Digital input  |
| Electrical connection 2, connection type             | Terminal strip   |
| Electrical connection 2, connector system            | Spring-loaded terminal   |
| Electrical connection 2, number of connections/cores | 8  |
| Cable fitting  | 2x M20x1.5   |
| Max. cable length                                    | 30 m for external position sensor<br>Shielded  |
| Note on ambient temperature                          | Display: -30 - 80°C  |
| Storage temperature                                  | -40 °C ... 80 °C   |
| Climatic category                                    | 1K5 to EN 60721 for storage<br>4K3 to EN 60721 for operation   |
| Shock resistance                                     | Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27  |
| Vibration resistance                                 | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6                           |
| Pollution degree                                     | 3  |
| Approval   | RCM trademark  |
| CE mark (see declaration of conformity)              | To EU EMC Directive<br>To EU Explosion Protection Directive (ATEX)<br>In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity)         | To UK instructions for EMC<br>To UK RoHS instructions  |
| Material housing                                     | Aluminium, powder-coated   |
| Material screen                                      | PC   |
| Material shaft                                       | High-alloy stainless steel   |
| Material coupling                                    | High-alloy stainless steel   |
| Material screws                                      | Galvanised steel   |
| Material seals                                       | EPDM<br>NBR<br>VMQ   |
| Product weight                                       | 2640 g   |