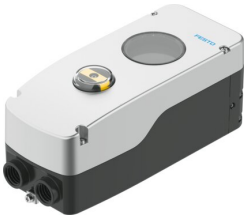
Positioner
CMSH-S-VDE1-S-A-AL-G14-C1M20-HA-V2

Part number: 8186701



Data sheet

Feature	Value
Design	Digital, electropneumatic positioner
Mode of operation	Single-acting
Design characteristics	Safety pneumatic output 2 exhausted
Mounting position	Any
Type of mounting	With accessories in accordance with 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 buttons
Cycle time	20 ms
Nominal altitude of use	<= 2000 m NHN
Overvoltage category	II
Operating pressure	0.14 MPa...0.8 MPa 1.4 bar...8 bar 20.3 psi...116 psi
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation not possible Maximum particle size 40 µm
Air flow rate at Δp = 6 bar	380 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

Feature	Value
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
Digital outputs, supply voltage	8.2 V 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 Digital input 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 Analogue output 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 Shielded
Ambient temperature	-40 °C...80 °C
Note on ambient temperature	Display: -30 - 80 °C
Storage temperature	-40 °C...80 °C
Climatic category	1K5 to EN 60721 for storage 4K3 to EN 60721 for operation
Degree of protection	IP66 IP67
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
CE mark (see declaration of conformity)	To EU EMC Directive To EU Explosion Protection Directive (ATEX) In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Material housing	Aluminium, powder-coated
Material screen	Makrolon®
Material shaft	High-alloy stainless steel
Material coupling	High-alloy stainless steel
Material screws	Galvanised steel
Material seals	EPDM NBR VMQ
LABS (PWIS) conformity	VDMA24364 zone III
Note on materials	RoHS compliant
Product weight	2640 g