Positioner
CMSX-P-SE-C-U-F1-D-50-A

Part number: 8171507



Data sheet

Feature	Value
Design	Digital, electropneumatic positioner
Mode of operation	Double-acting
Design characteristics	Safety position – pneumatic outlet 4 exhausted Safety position – pneumatic outlet 2 pressurised
Mounting position	Any
Type of mounting	With accessories
Functional principle of measuring system	Potentiometer
Display	7-segment LCD display With backlighting
Size of dead zone	0.5 %...10 %
Operating pressure	0.3 MPa...0.8 MPa 3 bar...8 bar 43.5 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
Standard nominal flow rate (standardised to DIN 1343)	50 l/min
Pneumatic connection	G1/8
Nominal operating voltage DC	24 V
Operational voltage range DC	21.6 V...26.4 V
Max. current consumption	600 mA
Reverse polarity protection	For operating voltage connections
Connection resistance	80 kOhm
digital input, signal range	0 - 10 V 0 - 20 mA 4 - 20 mA
Analogue inputs, max. dynamic range	0 - 24 mA 0 - 11 V
Analogue inputs, linearity error at 25 °C	0.5 %
Analogue inputs, temperature coefficient	0.02 %FS/K
Analogue inputs, resolution	16 bit
Analog inputs, overload protection	Yes
Analogue inputs, electrical isolation	No

Feature	Value
digital output, signal range	4 - 20 mA
Analogue outputs, max. load impedance	600 Ohm
Analogue outputs, linearity error at 25°C	0.5%
Analogue outputs, temperature coefficient	0.02 %FS/K
Analogue outputs, resolution	12 bit
Analogue outputs, reverse polarity protection	Yes
Analog outputs, short circuit current rating	Yes
Analog outputs, overload protection	Yes
Analogue outputs, galvanic isolation	No
Characteristic for inputs	To IEC 61131-2, type 3
Digital inputs, reverse polarity protection	Yes
Digital inputs, electrical isolation	yes, optocoupler
Digital outputs, reverse polarity protection	Yes
Digital outputs, output current	100 mA
Digital outputs, short circuit current rating	Yes
Digital outputs, overload protection	Yes
Digital outputs, electrical isolation	yes, optocoupler
Electrical connection 1, function	3x digital output Analogue output Analogue input Digital input Power supply Power supply load
Electrical connection 1, connection type	Terminal strip
Electrical connection 1, connector system	Screw terminal
Electrical connection 1, number of connections/cores	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, connector system	Screw terminal
Electrical connection 2, number of connections/cores	3
Electrical connection 2, tightening torque	0.6 Nm
Cable fitting	M12 x 1.5 for electrical connection 2 M20 x 1.5 for electrical connection 1
Permissible cable diameter	3 - 6.5 mm for electrical connection 2 7 - 13 mm for electrical connection 1
Max. cable length	3 m for electrical connection 2 30 m for electrical connection 1
Ambient temperature	-5 °C...60 °C
Storage temperature	-20 °C...60 °C
Relative air humidity	5 - 95% Non-condensing
Degree of protection	IP65
Corrosion resistance class CRC	2 - Moderate corrosion stress
Shock resistance	Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27 As per EN 60068-2-29
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 As per EN 60068-2-6
Approval	RCM
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Material housing	Reinforced PC
Material base plate	Wrought aluminium alloy, anodised

Feature	Value
Material shaft	High-alloy stainless steel
Material coupling	High-alloy stainless steel
Material screws	High-alloy stainless steel
Material seals	NBR
Material cable gland	PA
Material blanking plug	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