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

Part number: 8171508



Data sheet

Feature	Value
Structural design	digital, electropneumatic positioner
Mode of operation	Double-acting
Design features	Safety position - pneumatic outlets closed
Mounting position	Any
Type of mounting	With accessories
Measuring principle of linear potentiometer	Potentiometer
Display	7-segment LCD display With backlighting
Size of dead space	0.5 %...10 %
Operating pressure	0.3 MPa...0.8 MPa 3 bar...8 bar 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 Maximum particle size 40 µm
Normal nominal flow rate (normalized to DIN 1343)	50 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 0 - 20 mA 4 - 20 mA
Analog inputs, max. dynamic range	0 - 24 mA 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
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 Analogue output Analog input Digital input Power supply 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 M20 x 1.5 for electrical connection 1
Approved 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-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 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 as per EN 60068-2-6
Certification	RCM compliance mark
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Housing material	Reinforced PC
Base plate material	Wrought aluminum alloy, anodized

Feature	Value
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