Analogue input module
CPX-E-4AI-U-I

Part number: 4080493

General operating condition

Data sheet

Feature	Value
Dimensions (W x L x H)	18.9 mm x 76.6 mm x 124.3 mm
Grid dimension	18.9 mm
Type of mounting	via DIN rail
Product weight	96 g
Mounting position	Vertical Horizontal
Ambient temperature	-5 °C ... 50 °C
Note on ambient temperature	-5 - 60°C for vertical installation
Storage temperature	-20 °C ... 70 °C
Relative air humidity	95% Non-condensing
Degree of protection	IP20
Corrosion resistance class CRC	0 - No corrosion stress
Vibration resistance	Transport application test with severity level 1 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27
Max. cable length	30 m inputs Shielded
LABS (PWIS) conformity	VDMA24364 zone III
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
KC mark	KC-EMV
Approval	RCM c UL us - Listed (Oil)
Certificate issuing authority	UL E239998
Note on materials	RoHS compliant
Material housing	Process automation
Material screws	Galvanised steel
Diagnostics via LED	Error per channel Errors per module
Diagnostics via bus	Wire breakage Short circuit/overload in sensor supply Parameter error Parameterisation error Overload analogue inputs Upper limit value violated Underflow/overflow Lower limit value not observed
Max. address volume, inputs	8 Byte

Feature	Value
Module parameters	Limit monitoring hysteresis Deactivate sensor supply Behaviour after overload on analogue inputs Behaviour after short circuit/overload
Channel parameters	Wire break diagnostics Parameter error diagnostics Underflow/overflow diagnostics Diagnostics for upper limit Diagnostics for lower limit Smoothing factor Signal range per channel Lower/upper limits
Internal cycle time	<= 500 µs
Nominal DC operating voltage, electronics/sensors	24 V
Permissible voltage fluctuations for electronics/sensors	±25%
Intrinsic current consumption at nominal operating voltage for electronics/sensors	Typically 70 mA
Power failure bridging	10 ms
Reverse polarity protection	24 V sensor supply against 0 V sensor supply
Electrical connection input, function	Analogue input
Electrical connection input, connection type	4x terminal strip
Electrical connection input, connector system	Spring-loaded terminal
Electrical connection input, number of connections/cores	4
Electrical connection input, connection pattern	00995841
Electrical connection for input, conductor cross section	0.2 mm² ... 1.5 mm²
Electrical connection for input, note on conductor cross section	0.2 - 2.5 mm² for flexible conductors without wire ferrule
Electrical connection for input 2, function	Functional earth
Electrical connection for input 2, connection type	Terminal strip
Electrical connection for input 2, connection technology	Spring-loaded terminal
Electrical connection for input 2, number of pins/wires	4
Electrical connection for input 2, connection pattern	00995842
Electrical connection for input 2, conductor cross section	0.2 mm² ... 1.5 mm²
Electrical connection for input 2, note on conductor cross section	0.2 - 2.5 mm² for flexible conductors without wire ferrule
Number of inputs	4
Behaviour after end of overload of the sensor supply	Automatic return (default) Parameterisable (module by module)
Max. residual current of inputs per module	1.4 A
Measured variable	Voltage Current
Data format	15 bits + prefix Linear scaling
analog input	-10 - 10 V -5 - 5 V 0 - 10 V 1 - 5 V -20 - 20 mA 0 - 20 mA 4 - 20 mA
Repetition accuracy	±0.1% at 25°C
Basic error limit at 25 °C	±0.2 %
Operating error limit related to the ambient temperature range	±0.3 %
Isolation channel - channel	No
Isolation channel - internal bus	Yes
Fuse protection (short circuit)	Internal electronic fuse per module