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
Width dimension	18.9 mm
Type of mounting	With H-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 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Max. cable length	30 m inputs Shielded
LABS (PWIS) conformity	VDMA24364 zone III
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
KC characters	KC EMC
Certification	RCM compliance mark c UL us - Listed (OL)
Certificate issuing authority	UL E239998
Note on materials	RoHS-compliant
Housing material	PA
Material of screws	Steel, galvanized
Diagnostics via LED	Faults per channel Faults per module
Diagnostics via bus	Wire break Sensor supply short circuit/overload Parameter error Parameterization error Overload at analog inputs Upper limit value violated Underflow/overflow Lower limit value not complied with
Max. address capacity inputs	8 byte

Feature	Value
Module parameters	Limit monitoring hysteresis Deactivate sensor supply Response to analog input overload Response to short circuit/overload
Channel parameters	Wire break diagnostics Parameter error diagnostics Underflow/overflow diagnostics Upper limit diagnostics Lower diagnostic limit Smoothing factor Signal range per channel Lower/upper limit
Internal cycle time	<= 500 µs
Nominal operating voltage DC for 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 buffering	10 ms
Reverse polarity protection	24 V sensor supply against 0 V sensor supply
Electrical connection input, function	Analog input
Electrical connection input, connection type	4x terminal strip
Electrical input connection, connection technology	Spring-loaded terminal
Electrical connection, input, number of pins/wires	4
Electrical connection for input, connection pattern	00995841
Electrical connection for input, conductor cross section	0.2 mm² ... 1.5 mm²
Electrical connection for input, information on conductor cross section	0.2 - 2.5 mm² for flexible conductors without cable end sleeves
Electrical connection input 2, function	Functional ground
Electrical connection input 2, connection type	Terminal strip
Electrical input 2 connection, connection technology	Spring-loaded terminal
Electrical connection, 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, information on conductor cross section	0.2 - 2.5 mm² for flexible conductors without cable end sleeves
No. of inputs	4
Behavior after end of overload of the sensor supply	Automatic return (default) Parameterizable (module by module)
Max. residual current of inputs per module	1.4 A
Measured variable	Voltage Current
Data format	15 bit + sign Linear scaling
Signal range	-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 %
Electrical isolation between channels	no
Electrical isolation between channel and internal bus	yes
Fuse protection (short circuit)	Internal electronic fuse per module