

Analogue input module

CPX-E-4AI-U-I

Part number: 4080493

FESTO



WH	0	1	RD
WH	2	3	BU

Data sheet

Feature	Value
Dimensions (W x L x H)	18.9 x 76.6 x 124.3 mm
Grid 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 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 instructions for EMC To UK RoHS instructions
KC mark	KC-EMV
Approval	RCM trademark c UL us listed (OL)
Certificate issuing authority	UL E239998
Note on materials	RoHS-compliant
Material housing	PA
Material screws	Galvanised steel
Diagnostics via LED	Errors per channel Errors per module

Feature	Value
Diagnostics via bus	Wire break Short circuit/overload in sensor supply Parameter errors Parameterisation error Overload at analogue inputs Upper limit value violated Overflow/underflow Lower limit value not observed
Max. address volume, inputs	8 Byte
Module parameters	Data format, analogue inputs Short circuit diagnostics for sensor supply Parameterisation error diagnostics Diagnostics of overload at analogue inputs 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 Upper limit diagnostics Lower limit diagnostics Smoothing factor Signal range per channel Lower/upper limits
Internal cycle time	$\leq 500 \mu\text{s}$
Nominal DC operating voltage, electronics/sensors	24 V
Permissible voltage fluctuations for electronics/sensors	$\pm 25\%$
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 for input, conductor cross section	0.2 mm ² ...1.5 mm ²
Electrical connection for input, note on conductor cross section	0.2 - 2.5 mm ² 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, conductor cross section	0.2 mm ² ...1.5 mm ²
Electrical connection for input 2, note on conductor cross section	0.2 - 2.5 mm ² 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	$\pm 0.1\%$ at 25°C
Basic error limit at 25 °C	$\pm 0.2\%$
Operating error limit related to the ambient temperature range	$\pm 0.3\%$

Feature	Value
Isolation channel - channel	no
Isolation channel - internal bus	yes
Fuse protection (short circuit)	Internal electronic fuse per module