Digital input module
CPX-AP-I-8DI-M12-5P

Part number: 8086602

General operating condition

Data sheet

Feature	Value
Dimensions W x L x H	30 mm x 170 mm x 35 mm
Type of mounting	On H-rail with accessories With through-hole
Product weight	126 g
Ambient temperature	-20 °C ... 60 °C
Storage temperature	-40 °C ... 70 °C
Relative air humidity	5 - 95% Non-condensating
Degree of protection	IP65 IP67
Note on degree of protection	Unused connections sealed
Corrosion resistance class (CRC)	1 - Low 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
Contamination level	2
Overvoltage category	II
Max. cable length	30 m inputs 50 m system communication
Information on max. cable length	Power supply according to nominal voltage
LABS (PWIS) conformity	VDMA24364-B2-L
Cleanroom suitability, measured according to ISO 14644-14	Statically installed element, no meaningful evaluation possible according to ISO 14644-1
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
KC characters	KC-EMV
Certification	RCM compliance mark c UL us - Listed (OL)
Certificate issuing authority	UL E239998
Note on materials	RoHS compliant
Housing material	PC Die-cast zinc, nickel-plated
O-ring material	FPM
Diagnostics via LED	Diagnostics per module Status per channel

Feature	Value
Diagnose per internal communication	Short circuit/overload in sensor supply Electronics/sensors overvoltage Electronics/sensors undervoltage
Max. address capacity inputs	1 byte
Communication interface, function	System communication XF10 IN / XF20 OUT
Communication interface, connection type	2x port
Communication interface, connection technology	M8x1, D-coded as per EN 61076-2-114
Communication interface, connection pattern	00995937
Communication interface, number of pins/wires	4
Communication interface, protocol	AP
Communication interface, shielding	Yes
Power supply, function	Incoming electronics/sensors and load
Power supply, type of connection	Plug
Power supply, connection technology	M8x1, A-coded as per EN 61076-2-104
Power supply, connection pattern	00991171
Power supply, number of pins/wires	4
Voltage forwarding, function	Outgoing electronics/sensors and load
Voltage forwarding, connection type	Socket
Voltage forwarding, connection technology	M8x1, A-coded as per EN 61076-2-104
Voltage forwarding, connection pattern	00991872
Voltage forwarding, number of pins/wires	4
Note regarding operating voltage	SELV/PELV fixed power supplies required Note voltage drop
Nominal operating voltage DC for electronics/sensors	24 V
Permissible voltage fluctuations for electronics/sensors	±25%
Max. power supply	2 x 4 A (external fuse required)
Intrinsic current consumption at nominal operating voltage for electronics/sensors	Typically 32 mA
Power failure buffering	10 ms
Reverse polarity protection	Yes
Electrical connection input, function	Digital input
Electrical connection input, connection type	4x port
Electrical input connection, connection technology	M12x1 A-coded as per EN 61076-2-101
Electrical connection for input, connection pattern	00995384
Electrical connection, input, number of pins/wires	5
No. of inputs	8
Input characteristics	As per IEC 61131-2, Type 3
Switching level	Signal 0: <= 5 V Signal 1: >= 11 V
Input switching logic	PNP (positive switching) 2-wire sensors as per IEC 61131-2 3-wire sensors as per IEC 61131-2
Input debounce time	0.1 ms 3 ms 10 ms 20 ms
Fuse protection inputs (short circuit)	Internal electronic fuse per module
Max. residual current of inputs per module	1.8 A
Electrical isolation of inputs between channels	No
Digital inputs, electrical isolation of input - internal communication	Yes