Digital input module
CPX-AP-I-16DI-M12-5P

Part number: 8179435



Data sheet

Feature	Value
Dimensions (W x L x H)	60 mm x 170 mm x 35 mm
Type of mounting	On DIN rail via accessories With through-hole
Product weight	216 g
Ambient temperature	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Relative air humidity	5 - 95% Non-condensing
Degree of protection	IP65 IP67
Note on degree of protection	Unused connections sealed
Corrosion resistance class CRC	1 - Low corrosion stress
Max. cable length	30 m inputs 50 m system communication
Note on max. cable length	Power supply according to nominal voltage
LABS (PWIS) conformity	VDMA24364-B2-L
Cleanroom suitability, measured according to ISO 14644-14	Element installed statically, no meaningful evaluation possible according to ISO 14644-1
CE mark (see declaration of conformity)	To EU EMC Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
KC mark	KC-EMV
Approval	RCM c UL us - Listed (Oil)
Certificate issuing authority	UL E239998
Note on materials	RoHS compliant
Material housing	PA Makrolon® Nickel-plated die-cast zinc
Material o-ring	Fluoro rubber
Diagnostics via LED	Diagnostics per module Status per channel
Diagnostics per internal communication	Short circuit/overload in sensor supply Electronics/sensors overvoltage Electronics/sensors undervoltage

Feature	Value
Communication interface, function	System communication XF10 IN / XF20 OUT
Communication interface, connection type	2x socket
Communication interface, connection technology	M8x1, D-coded according to EN 61076-2-114
Communication interface, number of pins/cores	4
Communication interface, protocol	AP
Communication interface, screened	Yes
Power supply, function	Incoming electronics/sensors and load
Power supply, connection type	Plug
power supply, connection system	M8x1, A-coded to EN 61076-2-104
Power supply, number of pins/wires	4
Power transmission, function	Outgoing electronics/sensors and load
Power transmission, connection type	Socket
Power transmission, connection technology	M8x1, A-coded to EN 61076-2-104
Power transmission, number of pins/wires	4
Note regarding operating voltage	SELV/PELV fixed power supplies required Note the voltage drop
Nominal DC operating voltage, 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 38 mA
Power failure bridging	10 ms
Reverse polarity protection	Yes
Electrical connection input, function	Digital input
Electrical connection input, connection type	8x socket
Electrical connection input, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection input, number of connections/cores	5
Number of inputs	16
Characteristic for inputs	To IEC 61131-2, type 3
Switching level	Signal 0: <= 5 V Signal 1: ≥ 11 V
Switching logic for inputs	PNP (positive switching) 2-wire sensors to IEC 61131-2 3-wire sensors to IEC 61131-2
Input debounce time	0.1 ms 3 ms 10 ms 20 ms
Fuse protection of 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
Electrical isolation of inputs between channel – internal communication	Yes