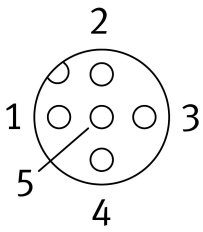
Digital input/output module
CPX-AP-I-16DIO-M12-5P

Part number: 8179437





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
Corrosion resistance class CRC	1 - Low 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
Overvoltage category	II
Max. cable length	30 m outputs 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 In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
KC mark	KC-EMV
Approval	RCM c UL us - Listed (Oil)
Note on materials	RoHS compliant
Material o-ring	Fluoro rubber
Diagnostics via LED	(Inputs-Outputs) Diagnostics per module (Inputs-Outputs) Status per channel

Feature	Value
Diagnostics per internal communication	Short-circuit/overload in output signal Short circuit/overload in sensor supply Electronics/sensors overvoltage Electronics/sensors undervoltage
Max. address volume, inputs	2 Byte
Max. address volume, outputs	2 Byte
Number of outputs	16
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	Typical 44 mA
Power failure bridging	10 ms
Reverse polarity protection	Yes
Electrical connection input, function	Digitalausgang 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
Electrical connection output, function	Digital output Digitaleingang
Electrical connection output, connection type	8x socket
Electrical connection output, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection output, number of connections/cores	5
Characteristic for outputs	Kanal 0 bis 11: nach IEC 61131-2, Typ 0,1 Kanal 12 bis 15: nach IEC 61131-2, Typ 0,5

Feature	Value
Switching logic for outputs	PNP (positive switching)
Fuse protection of outputs (short circuit)	Internal electronic fuse per channel
Output delay with ohmic load	Signal change 0->1: < 200 µs Signal change 1->0: < 200 µs
Max. residual current outputs per module	3.2 A
Electrical isolation of outputs between channels	No
Electrical isolation of outputs between channel - internal communication	Yes
Max. power supply per channel	Channel 0 to 11: 0.1 A Channel 12 to 15: 0.5 A