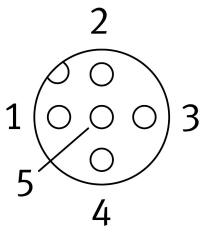
Digital input module
CPX-AP-A-16DI-D-M12-5P

Part number: 8129112





Data sheet

Feature	Value
Dimensions W x L x H	(incl. interlinking block) 50.1 mm x 107.3 mm x 57.5 mm
Width dimension	50.1 mm
Type of mounting	Screwed on
Product weight	96 g
Mounting position	Any
Ambient temperature	-20 °C...50 °C
Note on ambient temperature	Observe ambient temperature derating according to IEC 61131-2:2017
Storage temperature	-20 °C...70 °C
Relative air humidity	5 - 95% Non-condensating
Nominal altitude of use above sea level	<= 2000 m ASL (> 79.5 kPa)
Max. installation height	3500 m
Information on max. installation height	> 2000 m ASL (< 79.5 kPa) Observe ambient temperature derating according to IEC 61131-2:2017
Corrosion resistance class (CRC)	1 - Low corrosion stress
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
Note on vibration resistance	SG1 for DIN rail SG2 on direct mounting Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27
Note on shock resistance	30 g/11 ms as per EN 60068-2-27 SG1 on DIN rail SG2 on direct mounting Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Protection class	III
Contamination level	2
Overvoltage category	II
Max. cable length	30 m inputs
LABS (PWIS) conformity	VDMA24364-B2-L

Feature	Value
Material fire test	UL94 V-0 (housing)
Note on materials	RoHS compliant Halogen-free Contains no phosphoric acid esters
Cover material	PBT-reinforced
Material of screws	Steel, nickel-plated
O-ring material	FPM
Diagnostics via LED	Diagnostics per channel Status per channel
Diagnose per internal communication	Communication error Short circuit/overload in sensor supply Electronics/sensors overvoltage Electronics/sensors undervoltage
Max. address capacity inputs	2 byte
Channel parameters	Input debounce time
Communication interface, protocol	AP
Note regarding operating voltage	SELV/PELV fixed power supplies required Note voltage drop
Note on nominal operating voltage DC	Protected Extra-Low-Voltage as per IEC 60204-1
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 40 mA
Power failure buffering	10 ms
Reverse polarity protection	Yes
Electrical connection input, function	Digital input
Electrical connection input, connection type	8x port
Electrical input connection, connection technology	M12x1 A-coded as per EN 61076-2-101
Electrical connection, input, number of pins/wires	5
No. of inputs	16
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 (standard) 10 ms 20 ms
Digital inputs, electrical isolation of input - internal communication	Yes
Behavior after end of overload of the sensor supply	Automatic return
Fuse protection inputs (short circuit)	Internal electronic fuse per socket
Max. residual current of inputs per module	4 A
Electrical isolation of inputs between channels	No
Max. power supply per channel	0.5 A