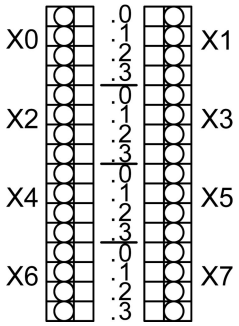
Digital input module
CPX-AP-A-8DI-PI

Part number: 8129106





Data sheet

Feature	Value
Dimensions (W x L x H)	(including interlinking block) 50.1 mm x 107.3 mm x 57.5 mm
Grid dimension	50.1 mm
Type of mounting	Screw-clamped
Product weight	93 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-condensing
Nominal altitude of use	<= 2000 m ASL (> 79.5 kPa)
Max. installation height	3500 m
Note 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 to FN 942017-4 and EN 60068-2-6
Note on vibration resistance	SG1 on DIN rail SG2 on direct mounting Transport application test with severity class 1 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Note on shock resistance	30 g/11 ms to EN 60068-2-27 SG1 on DIN rail SG2 on direct mounting Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27
Protection class	III
Pollution degree	2
Overvoltage category	II

Feature	Value
Max. cable length	30 m inputs
LABS (PWIS) conformity	VDMA24364-B2-L
Fire test material	UL94 V-0 (housing)
Note on materials	RoHS compliant Free of halogen Free of phosphoric acid ester
Material cover	Reinforced PBT
Material screws	Nickel-plated steel
Material o-ring	Fluoro rubber
Diagnostics via LED	Diagnostics per module Status per channel
Diagnostics per internal communication	Communication error Short circuit/overload in sensor supply Electronics/sensors overvoltage Electronics/sensors undervoltage
Max. address volume, inputs	1 Byte
Channel parameters	Input debounce time
Communication interface, protocol	AP
Note regarding operating voltage	SELV/PELV fixed power supplies required Note the voltage drop
Note on nominal operating voltage DC	Protected Extra-Low-Voltage to IEC 60204-1
Nominal DC operating voltage, 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 bridging	10 ms
Reverse polarity protection	Yes
Electrical connection input, function	Digital input
Electrical connection input, connection type	8x terminal strip
Electrical connection input, connector system	Spring-loaded terminal
Electrical connection for input, conductor cross section	0.25 mm²...1.5 mm²
Electrical connection for input, note on conductor cross section	0.25-1.5 flex.w.wire end.,rigid 0.13-1.5 flex. without wire ferrule
Electrical connection for input, AWG conductor cross section	AWG24 - AWG16
Number of inputs	8
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 (standard) 10 ms 20 ms
Electrical isolation of inputs between channel – internal communication	Yes
Behaviour after end of overload of the sensor supply	Automatic return
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
Max. power supply per channel	0.5 A