

IO-Link master CPX-AP-A-4IOL-M12

Part number: 8129114

FESTO



 [General operating condition](#)

Data sheet

Feature	Value
Protocol	IO-Link®
Dimensions (W x L x H)	50.1 mm x 107.3 mm x 57.5 mm
Grid dimension	50.1 mm
Type of mounting	Screw-clamped
Product weight	90 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	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
Max. cable length	20 m with IO-Link® operation
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

Feature	Value
Diagnostics via LED	Diagnostics per channel Diagnostics per module Load power supply Status per channel Status per module
Diagnostics per internal communication	IO-Link® event Short circuit/overload in sensor supply Electronics/sensors overvoltage Load overvoltage Electronics/sensors undervoltage Load undervoltage
Max. address volume, inputs	33 Byte
Max. address volume, outputs	33 Byte
Module parameters	Configuration of voltage monitoring load supply PL
Channel parameters	Activation diagnostics for IO-Link® device lost Port mode Target DeviceID Target VendorID Target cycle time
Internal cycle time	< 1 ms
Configuration support	IODD file
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 operating voltage DC of load	24 V
Permissible voltage fluctuation of load	±25%
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
Intrinsic current consumption at nominal operating voltage load	Typically 4 mA
Power failure bridging	10 ms
Potential separation between the supply voltages electronics/sensor technology and load/valves	Yes
Reverse polarity protection	Yes
Fuse protection of inputs (short circuit)	Internal electronic fuse per module
Max. residual current of inputs per module	2 A
Behaviour after end of overload of the outputs	No automatic return
Max. residual current outputs per module	4 A
Electrical isolation of outputs between channel - internal communication	Yes
Max. power supply per channel	2.1 A (50 W lamp load), per channel pair
Electrical connection for IO-Link, connection type	4x socket
Electrical connection for IO-Link, connection technology	M12x1, A-coded to EN 61076-2-101
Electrical connection for IO-Link, number of pins/wires	5
Electrical connection for IO-Link, connection pattern	00995384
IO-Link, communication	C/Q LED green
IO-Link, Number of ports	4
IO-Link, Port class	B
IO-Link, Protocol version	Master V 1.1
IO-Link, communication mode	DI, COM1. COM2. COM3. Configurable via software
IO-Link, Process data length OUT	Can be parameterised 8 - 128 bytes
IO-Link, Process data length IN	Can be parameterised 12 - 132 bytes
IO-Link, Min. cycle time	Dependent on minimum supported cycle time of the connected IO-Link® device