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	(incl. interlinking block) 50.1 mm x 107.3 mm x 57.5 mm
Width dimension	50.1 mm
Type of mounting	Screwed tightly
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 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 on H-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 H-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	20 m for IO-Link® operation
LABS (PWIS) conformity	VDMA24364-B2-L
Material fire test	UL94 V-0 (housing)
Note on materials	RoHS-compliant Halogen-free Free of phosphoric acid ester
Housing material	PC
Cover material	PBT-reinforced

Feature	Value
Material of screws	Steel, nickel-plated
O-ring material	FPM
Diagnostics via LED	Diagnostics per channel Diagnostics per module Load power supply Status per channel Status per module
Diagnose per internal communication	IO-Link® event Short circuit/overload in sensor supply Electronics/sensors overvoltage Load overvoltage Electronics/sensors undervoltage Load undervoltage
Max. address capacity inputs	33 byte
Max. address capacity outputs	33 byte
Module parameters	Configuration of voltage monitoring, load supply PL
Channel parameters	Activation of 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 voltage drop
Note on nominal operating voltage DC	Protected Extra-Low-Voltage as per IEC 60204-1
Nominal operating voltage DC load	24 V
Permissible voltage fluctuations load	± 25 %
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
Intrinsic current consumption at nominal operating voltage load	Typically 4 mA
Power failure buffering	10 ms
Potential separation between the supply voltages electronics/sensor technology and load/valves	yes
Reverse polarity protection	yes
Fuse protection inputs (short circuit)	Internal electronic fuse per module
Max. residual current of inputs per module	2 A
Behavior after end of overload of the outputs	No automatic return
Max. residual current of 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 IO-Link® connection, connection type	4x socket
Electrical connection, IO-Link®, connection technology	M12x1, A-coded as per EN 61076-2-101
Electrical IO-Link® connection, number of pins/wires	5
Electric IO-Link® connection, 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®, SIO mode support	Yes
IO-Link®, communication mode	Configurable via software SIO, COM1 (4.8 kBd), COM2 (38.4 kBd), COM3 (230.4 kBd)
IO-Link®, process data width OUT	8–128 bytes parameterizable
IO-Link®, process data width IN	12–132 bytes parameterizable

Feature	Value
IO-Link®, minimum cycle time	Depends on minimally supported cycle time of connected IO-Link® device