Remote I/O system
CPX-AP-A

Part number: 8079933

General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Electrical control	AP interface Ethernet
Protocol	AP
Dimensions (W x L x H)	Depending on the configuration
Grid dimension	50.1 mm
Type of mounting	On DIN rail via accessories On mounting frame Screw-clamped With through-hole for M5 screw with accessories With through-hole for M6 screw with accessories Via through-hole for M5 screw Via through-hole for M6 screw
Max. number of modules	15
Product weight	450 g ... 5200 g
Mounting position	Any, on H-rail: horizontal
Ambient temperature	-20 °C ... 50 °C
Note on ambient temperature	Observe derating according to user documentation 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 derating according to user documentation Observe ambient temperature derating according to IEC 61131-2:2017
Degree of protection	IP65 IP67
Note on degree of protection	Unused connections sealed
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

Feature	Value
Protection class	III
Protection against direct and indirect contact	SELV/PELV power supply units required
Pollution degree	2
Overvoltage category	II
LABS (PWIS) conformity	VDMA24364-B2-L
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
KC mark	KC-EMV
Approval	RCM c UL us - Listed (Oil)
Certificate issuing authority	UL E239998
Note on materials	RoHS compliant Free of halogen Free of phosphoric acid ester
Diagnostics via LED	Diagnostics per channel Diagnostics per module EtherCAT® RUN Ethernet/IP communication PROFINET communication Power supply, electronics/sensors Load power supply Status per channel Status per module System diagnostics Maintenance required
Diagnostics via bus	APDD invalid Switch-off load supply Communication error Electronics/sensors overvoltage Load overvoltage Electronics/sensors undervoltage Load undervoltage
Diagnostics per internal communication	Wire breakage IO-Link® event Communication error Short-circuit/overload in output signal Short circuit/overload Power OUT PL Short circuit/overload Power OUT PS Short circuit/overload in sensor supply Short circuit/overload Parameter error Parameterisation error Overload analogue inputs Upper limit value violated Electronics/sensors overvoltage Load overvoltage Underflow/overflow Lower limit value not observed Electronics/sensors undervoltage Load undervoltage
Note on fieldbus interface	All information that is relevant to CPX-AP can be read out via the Ethernet interfaces/fieldbus connections and changed depending on the function. Auto MDI, the bus module performs a crossover check Firmware update via Ethernet interface/fieldbus interface I&M functionality according to PNO is supported. Based on the Ethernet protocol IEEE 802.3
Fieldbus interface	Ethernet

Feature	Value
Field bus, protocol	ACD (Address Conflict Detection) DLR (Device Level Ring) EtherCAT® EtherCAT CoE EtherCAT Distributed Clocks (DC) EtherCAT EoE EtherCAT FoE EtherCAT Modular Device Profile (MDP) EtherNet/IP EtherNet/IP QoS EtherNet/IP Quickconnect LLDP MRP, MRPD (ring redundancy) Modbus/TCP (Modbus/UDP) PROFINET FSU PROFINET I&M0 .. 3 PROFINET IRT PROFINET RT PROFINET shared device S2 system redundancy SNMP
Fieldbus interface, function	Bus connection incoming/outgoing
Field bus, connection type	2x socket
Field bus, connection system	M12x1, D-coded to EN 61076-2-101 RJ45 to IEC 61076-3-117 (V14) SCRJ according to IEC 61754-24-21
Field bus, connection pattern	2 ... 8
Field bus interface, electrical isolation	Yes
Field bus interface, transmission rate	100 Mbit/s
Max. address volume, inputs	1024 Byte
Note on inputs	EP: 488 bytes Modbus: 4096 bytes
Max. address volume, outputs	1024 Byte
Note on outputs	EP: 496 bytes Modbus: 4096 bytes
Module parameters	FDevice destination address FDevice source address Configuration of voltage monitoring load supply PL Behaviour after short circuit/overload at the output
Channel parameters	Activation diagnostics for IO-Link® device lost Input debounce time Measured value smoothing Port mode Analog input Target DeviceID Target VendorID Target cycle time Lower/upper limits Linear scaling activation Unit for temperature measurement Hysteresis for measured value monitoring
Internal cycle time	‹ 1 ms
Configuration support	EDS file ESI file GSDML file IODD file
Power supply, function	Incoming electronics/sensors and load and functional earth Incoming electronics/sensors and load
Power supply, connection type	Plug
power supply, connection system	7/8“ to NFPA/T3.5.29 M12x1, L-coded to EN 61076-2-111 M18x1 M8x1, A-coded to EN 61076-2-104 Push-pull to IEC 61076-3-126
Power supply, number of pins/wires	4 ... 5

Feature	Value
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%
Max. power supply	4 A ... 16 A
Typ. intrinsic current consumption at nominal operating voltage for electronic system/sensors	40 mA ... 10000 mA
Typ. intrinsic current consumption at nominal operating voltage, load	3 mA ... 10000 mA
Power failure bridging	10 ms
Potential separation between the supply voltages electronics/sensor technology and load/valves	Yes
Reverse polarity protection	Yes