

# EtherNet/IP interface CPX-AP-A-EP-M12

Part number: 8129244

FESTO



 General operating condition

## Data sheet

| Feature                                 | Value   |
|---|---|
| Dimensions W x L x H                    | 50.1 mm x 107.3 mm x 57.5 mm  |
| Width dimension                         | 50.1 mm   |
| Type of mounting                        | Screwed on  |
| Max. number of modules                  | 80  |
| Product weight                          | 113 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%<br>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 | 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<br>SG2 on direct mounting<br>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<br>SG1 on DIN rail<br>SG2 on direct mounting<br>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                       | 100 m Ethernet/IP   |
| LABS (PWIS) conformity                  | VDMA24364-B2-L  |
| Material fire test                      | UL94 V-0 (housing)  |
| Note on materials                       | RoHS compliant<br>Halogen-free<br>Contains no phosphoric acid esters  |
| Cover material                          | PBT-reinforced  |
| Inspection window material              | PC  |
| Material of screws                      | Steel, nickel-plated  |

| Feature  | Value  |
|--|--|
| Threaded sleeve material   | high-alloy stainless steel   |
| O-ring material  | FPM  |
| Diagnostics via LED  | Diagnostics per module<br>Ethernet/IP communication<br>Power supply for electronics/sensors<br>Load power supply<br>System diagnostics<br>Maintenance required         |
| Diagnostics via bus  | APDD invalid<br>Load switch-off<br>Communication error<br>Electronics/sensors overvoltage<br>Overvoltage load<br>Electronics/sensors undervoltage<br>Undervoltage load |
| Fieldbus interface, type   | Ethernet   |
| Fieldbus interface, protocol   | ACD (Address Conflict Detection)<br>DLR (Device Level Ring)<br>EtherNet/IP<br>EtherNet/IP QoS<br>EtherNet/IP Quick Connect<br>Modbus/TCP (Modbus/UDP)<br>SNMP          |
| Fieldbus interface, function   | Bus connection, incoming/forwarding  |
| Fieldbus interface, connection type  | 2x port  |
| Fieldbus interface, connection technology  | M12x1, D-coded as per EN 61076-2-101   |
| Fieldbus interface, connection pattern   | 00995716   |
| Fieldbus interface, number of poles/wires  | 4  |
| Fieldbus interface, galvanic isolation   | Yes  |
| Fieldbus interface, transmission rate  | 100 Mbit/s   |
| Fieldbus interface, note on transmission rate                                      | 100 Mbit, switched fast Ethernet   |
| Max. address capacity inputs   | 4096 byte  |
| Information on inputs  | EP: 488 byte<br>Modbus: 4096 Byte  |
| Max. address capacity outputs  | 4096 byte  |
| Note on outputs  | EP: 496 byte<br>Modbus: 4096 byte  |
| Module parameters  | Configuration of voltage monitoring, load supply PL  |
| Internal cycle time  | < 1 ms   |
| Configuration support  | EDS file   |
| Communication interface, function  | System communication XF20 OUT  |
| Communication interface, connection type   | Socket   |
| Communication interface, connection technology                                     | M8x1, D-coded as per EN 61076-2-114  |
| Communication interface, number of pins/wires                                      | 4  |
| Communication interface, connection pattern  | 00995937   |
| Communication interface, protocol  | AP   |
| Communication interface, shielding   | Yes  |
| Note regarding operating voltage   | SELV/PELV fixed power supplies required<br>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 95 mA  |
| Intrinsic current consumption at nominal operating voltage load                    | Typically 3 mA   |
| Power failure buffering  | 10 ms  |

| Feature  | Value |
|--|-------|
| Potential separation between the supply voltages electronics/sensor technology and load/valves | Yes   |
| Reverse polarity protection  | Yes   |