## Digital input/output module CPX-AP-I-4DI4DO-M8-3P

**FESTO** 

Part number: 8086601



General operating condition

## **Data sheet**

| Feature                                      | Value   |
|--|---|
| Dimensions W x L x H                         | 30 mm x 170 mm x 35 mm  |
| Type of mounting                             | On H-rail with accessories<br>With through-hole   |
| Product weight                               | 129 g   |
| Ambient temperature                          | -20 °C 50 °C  |
| Storage temperature                          | -40 °C 70 °C  |
| Relative air humidity                        | 5 - 95 %<br>Non-condensing  |
| Degree of protection                         | IP65<br>IP67  |
| Note on degree of protection                 | Unused connections sealed   |
| Corrosion resistance class (CRC)             | 1 - Low corrosion stress  |
| Max. cable length                            | 30 m outputs 30 m inputs 50 m system communication  |
| Information on max. cable length             | Power supply according to nominal voltage   |
| LABS (PWIS) conformity                       | VDMA24364-B2-L  |
| Cleanroom class                              | Statically installed element, no meaningful evaluation possible according to ISO 14644-1  |
| CE marking (see declaration of conformity)   | As per EU EMC directive   |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC  |
| KC characters                                | KC EMC  |
| Certification                                | RCM compliance mark c UL us - Listed (OL)   |
| Certificate issuing authority                | UL E239998  |
| Note on materials                            | RoHS-compliant  |
| Housing material                             | PA<br>PC<br>Die-cast zinc, nickel-plated  |
| O-ring material                              | FPM   |
| Diagnostics via LED                          | Diagnostics per module<br>Load power supply<br>Status per channel   |
| Diagnose per internal communication          | Load switch-off Short-circuit/overload in output signal Short circuit/overload in sensor supply Electronics/sensors overvoltage Load overvoltage Electronics/sensors undervoltage Load undervoltage |

| Feature  | Value  |
|--|--|
| No. of outputs   | 4  |
| Communication interface, function  | System communication XF10 IN / XF20 OUT  |
| Communication interface, connection type   | 2x socket  |
| Communication interface, connection technology                                     | M8x1, D-coded as per EN 61076-2-114  |
| Communication interface, number of pins/wires                                      | 4  |
| Communication interface, protocol  | AP   |
| Communication interface, shielding   | yes  |
| Power supply, function   | Incoming electronics/sensors and load  |
| Power supply, type of connection   | Plug   |
| Power supply, connection technology  | M8x1, A-coded as per EN 61076-2-104  |
| Power supply, number of pins/wires   | 4  |
| Voltage forwarding, function   | Outgoing electronics/sensors and load  |
| Voltage forwarding, connection type  | Socket   |
| Voltage forwarding, connection technology  | M8x1, A-coded as per EN 61076-2-104  |
| Voltage forwarding, number of pins/wires   | 4  |
| Note regarding operating voltage   | SELV/PELV fixed power supplies required Note voltage drop                                    |
| 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 %   |
| Max. power supply  | 2 x 4 A (external fuse required)   |
| Intrinsic current consumption at nominal operating voltage for electronics/sensors | Typically 35 mA  |
| Intrinsic current consumption at nominal operating voltage load                    | Typically 10 mA  |
| Power failure buffering  | 10 ms  |
| Reverse polarity protection  | yes  |
| Electrical connection input, function  | Digital input  |
| Electrical connection input, connection type                                       | 4x socket  |
| Electrical input connection, connection technology                                 | M8x1, A-coded as per EN 61076-2-104  |
| Electrical connection, input, number of pins/wires                                 | 3  |
| No. of inputs  | 4  |
| Input characteristics  | As per IEC 61131-2, type 3   |
| Switching level  | Signal 0: <= 5 V   |
|  | Signal 1: >= 11 V  |
| Input switching logic  | PNP (positive switching) 2-wire sensors as per IEC 61131-2 3-wire sensors as per IEC 61131-2 |
| Input debounce time  | 0.1 ms<br>3 ms<br>10 ms<br>20 ms   |
| Fuse protection 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   |
| Digital inputs, electrical isolation of input - internal communication             | yes  |
| Electrical connection output, function   | Digital output   |
| Electrical connection output, connection type                                      | 4x socket  |
| Electrical connection output, connection technology                                | M8x1, A-coded as per EN 61076-2-104  |
| Electrical output connection, number of pins/wires                                 | 3  |
| Characteristic curve outputs   | As per IEC 61131-2, type 0.5   |
| Switching logic at outputs   | PNP (positive switching)   |
| Fuse protection outputs (short circuit)  | Internal electronic fuse per channel   |
| Output delay with resistive load   | Signal change 0->1: < 200 μs   |
|  | Signal change 1->0: < 200 μs   |

| Feature  | Value |
|--|-------|
| Max. residual current of outputs per module                              | 2 A   |
| Electrical isolation of outputs between channels                         | no    |
| Electrical isolation of outputs between channel - internal communication | yes   |
| Max. power supply per channel  | 0.5 A |