

# Digital input module CPX-AP-I-8DI-M8-3P

Part number: 8086600

FESTO



 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 DIN rail via accessories<br>With through-hole   |
| Product weight  | 126 g  |
| Ambient temperature                                       | -20 °C ... 60 °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   |
| Vibration resistance                                      | Transport application test with severity level 1 to FN 942017-4 and EN 60068-2-6         |
| Shock resistance  | Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27                        |
| Pollution degree  | 2  |
| Overvoltage category                                      | II   |
| Max. cable length   | 30 m inputs<br>50 m system communication   |
| Note on max. cable length                                 | Power supply according to nominal voltage  |
| LABS (PWIS) conformity                                    | VDMA24364-B2-L   |
| Cleanroom suitability, measured according to ISO 14644-14 | Element installed statically, no meaningful evaluation possible according to ISO 14644-1 |
| CE mark (see declaration of conformity)                   | To EU EMC Directive<br>In accordance with EU RoHS Directive                              |
| UKCA marking (see declaration of conformity)              | To UK instructions for EMC<br>To UK RoHS instructions                                    |
| KC mark   | KC-EMV   |
| Approval  | RCM<br>c UL us - Listed (Oil)  |
| Certificate issuing authority                             | UL E239998   |
| Note on materials   | RoHS compliant   |
| Material housing  | Makrolon®<br>Nickel-plated die-cast zinc   |
| Material o-ring   | Fluoro rubber  |
| Diagnostics via LED                                       | Diagnostics per module<br>Status per channel   |

| Feature  | Value  |
|--|--|
| Diagnostics per internal communication   | Short circuit/overload in sensor supply<br>Electronics/sensors overvoltage<br>Electronics/sensors undervoltage |
| Communication interface, function  | System communication XF10 IN / XF20 OUT  |
| Communication interface, connection type   | 2x socket  |
| Communication interface, connection technology                                     | M8x1, D-coded according to EN 61076-2-114  |
| Communication interface, plug pattern  | 00995937   |
| Communication interface, number of pins/cores                                      | 4  |
| Communication interface, protocol  | AP   |
| Communication interface, screened  | Yes  |
| Power supply, function   | Incoming electronics/sensors and load  |
| Power supply, connection type  | Plug   |
| power supply, connection system  | M8x1, A-coded to EN 61076-2-104  |
| Power supply, connection pattern   | 00991171   |
| Power supply, number of pins/wires   | 4  |
| Power transmission, function   | Outgoing electronics/sensors and load  |
| Power transmission, connection type  | Socket   |
| Power transmission, connection technology  | M8x1, A-coded to EN 61076-2-104  |
| Power transmission, plug pattern   | 00991872   |
| Power transmission, number of pins/wires   | 4  |
| Note regarding operating voltage   | SELV/PELV fixed power supplies required<br>Note the voltage drop   |
| Nominal DC operating voltage, 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 32 mA  |
| Power failure bridging   | 10 ms  |
| Reverse polarity protection  | Yes  |
| Electrical connection input, function  | Digital input  |
| Electrical connection input, connection type                                       | 8x socket  |
| Electrical connection input, connector system                                      | M8x1, A-coded to EN 61076-2-104  |
| Electrical connection input, connection pattern                                    | 00991871   |
| Electrical connection input, number of connections/cores                           | 3  |
| Number of inputs   | 8  |
| Characteristic for inputs  | To IEC 61131-2, type 3   |
| Switching level  | Signal 0: ≤ 5 V<br>Signal 1: ≥ 11 V  |
| Switching logic for inputs   | PNP (positive switching)<br>2-wire sensors to IEC 61131-2<br>3-wire sensors to IEC 61131-2                     |
| Input debounce time  | 0.1 ms<br>3 ms<br>10 ms<br>20 ms   |
| Fuse protection of 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   |
| Electrical isolation of inputs between channel – internal communication            | Yes  |