

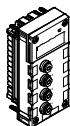
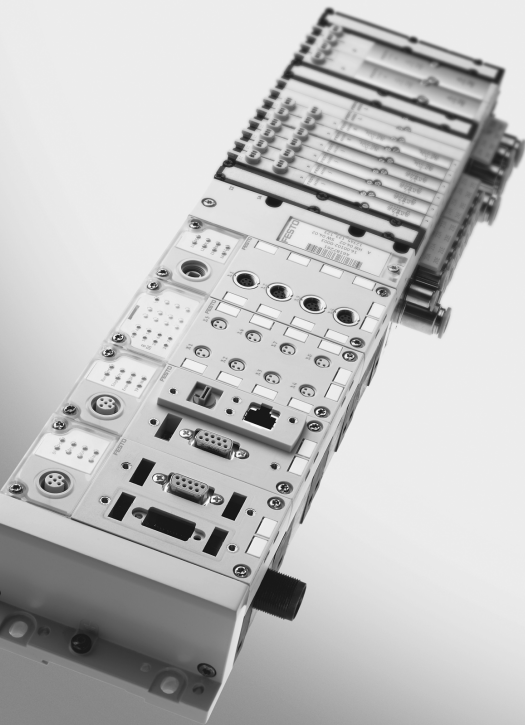
CPX-Terminal

FESTO

Brief description

CPX Pressure
Sensor Module
CPX-4AE-P

– English



8107463
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[8107465]

Translation of the original instructions

Documentation on the product



For all available product documentation
→ www.festo.com/pk

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English 3

1 User instructions

The CPX pressure sensor module is only intended for use in CPX terminals.

The maximum values specified in the section “Technical specifications” must be observed during operation.

Detailed information can be found in the manual for the CPX analogue IO modules (P.BE-CPX-AX-...) and in the CPX system manual (P.BE-CPX-SYS-...).



Warning

- Switch off the following equipment before undertaking installation and/or maintenance work:
 - compressed air supply
 - operating and load voltage supplies.
- Connect an earth conductor with sufficient cross-sectional area to the connection on the CPX terminal marked with the earth symbol.
- The I/O modules contain electrostatically sensitive components. Therefore, do not touch any components. Observe the handling instructions for electrostatically sensitive components.



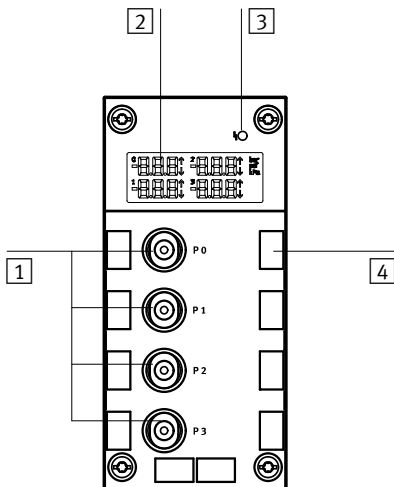
Note

Only commission a CPX terminal which has been completely assembled and wired.

The pressure sensor module does not have a separate electrical connection block. Information about installing a CPX terminal can be found in the CPX system manual.

2 Connection and display elements

- 1 4 Pneumatic connections
(QS connections for
hose diameter
4 mm)
- 2 LCD display
- 3 Module fault LED
- 4 Identification plate



LED	Meaning (lights red)
 (red)	– Limit value underrun – Limit value overrun – Sensor limit diagnostic – Invalid process value – Parameterisation error – Incorrect device type fitted – Module defective
For details, see the manual for the CPX analogue IO modules (type P.BE-CPX-AX-...)	

3 Installation instructions



Warning

If the pneumatic tubing is under pressure when dismantled, it may perform sudden unexpected movements, causing injury to persons. Carry out the following steps before disconnecting the pneumatic tubing on the pressure sensor module:

- Switch off the compressed air supply.
- Make sure that all pneumatic tubing is pressureless.
- Exhaust all actuators controlled by valves that are blocked in the rest or middle positions.

3.1 Installing the pneumatic tubing

Connecting:

1. Cut off the end of the hose straight. Use a suitable hose cutter for this.
2. Press the hose into the QS connector as far as the stop (see picture).
3. Group the tubing together with tube ties or a tube holder for a better overview of the system.



Removing:

1. Mark all pneumatic tubing.
2. Press the locking ring of the QS connector, e.g. using a screwdriver or the QSO releasing tool from Festo.
3. Remove the tubing from the QS connector.
4. Close all connections not needed with blanking plugs (type QSC-4H, part number 153267)



3.2 Operation



Caution

Extreme pneumatic conditions (rapid pressure change with large pressure amplitudes) can damage the pressure sensors of the module.

Example:

Pressure changes at one second intervals with pressure amplitudes of 10 bar result in a temperature increase of 50 K.

The **settings** for the pressure sensor module are made by parameterisation (see the CPX analogue IO modules manual).

4 Technical Data

Technical Data	CPX-4AE-P-D10	CPX-4AE-P-B2
General technical specifications of the CPX terminal	See CPX system manual (P.BE-CPX-SYS-...)	
Protection class according to EN 60529	IP65 / IP67	
Operating voltage supply for the electronics – Nominal voltage – Internal current consumption at 24 V (internal electronics)	DC 18 ... 30 V Typical 50 mA	
– Accuracy – Internal cycle time – Data format of the process values	±3 % of the max. measured value 5 ms VZ + 15 Bit, negative values represented as twos-complement	
Module identification (Handheld)	4AI-P-D10	4AI-P-B2
Module code / sub-module code (CPX-specific)	133/1	133/2

Technical Data	CPX-4AE-P-D10	CPX-4AE-P-B2
Pressure inputs – Channels – Pneumatic connection – Medium – Temp. range of the medium	4 QS connect. for hose diameter 4 mm Compressed air, filtered (40 µm), unlubricated or lubricated 0 ... +50 °C	
– Measurement range relative to the ambient pressure – Measurement range for differential pressure calculation – Max. measurement range for differential pressure calculation – Max. permitted gauge pressure range of the pressure sensors – Pressure for sensor limit diagnostic	0 ... 10 bar 0 ... 1000 kPa 0 ... 145 psi -10 ... 10 bar -1000 ... 1000 kPa -145 ... 145 psi -10.28 ... 10.28 bar -1028 ... 1028 kPa -149 ... 149 psi 15 bar 1500 kPa 217.5 psi ≥ 10.30 bar ≥ 1030 kPa ≥ 149.4 psi	-1 ... 1 bar -100 ... 100 kPa -14.5 ... 14.5 psi -2 ... 2 bar -200 ... 200 kPa -29 ... 29 psi -2.05 ... 2.05 bar -205 ... 205 kPa -30.4 ... 30.4 psi 5 bar 500 kPa 72.5 psi ≥ 1.051 bar ≥ 1051 kPa ≥ 15.24 psi