

Control block CPX-CM-HPP

FESTO



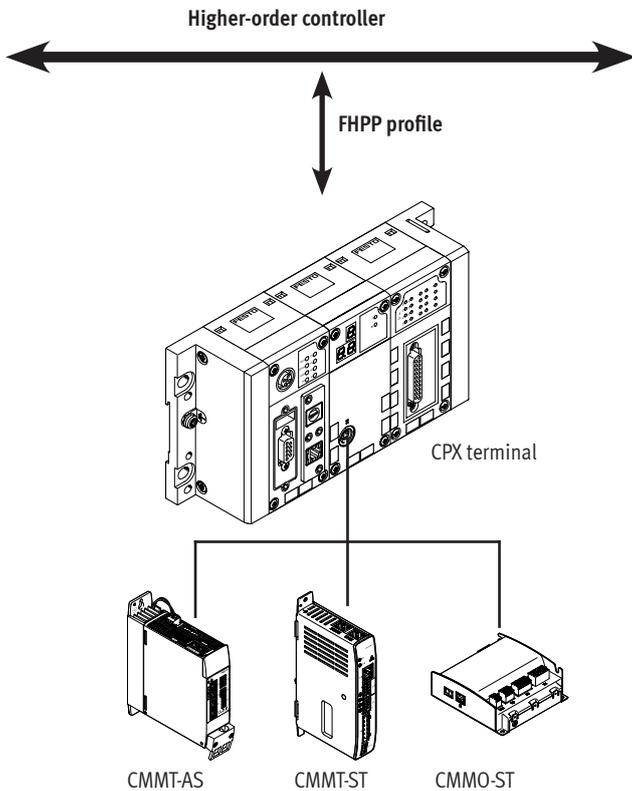
Key features

New options for controlling drive technology

The control block CPX-CM-HPP makes all of Festo's electric drive technology compatible with all industrial communication interfaces. CPX-CM-HPP is controlled using a CPX bus node, by a higher-order controller or via a front end controller in the CPX terminal.

Communication with the drives is standardised via the Festo Handling and Positioning Profile (FHPP). The control component is therefore independent of the bus node used.

A maximum of 4 individual electric axes can be connected via CAN bus.



Advantages for users

| More options | Single | Flexible | Low cost |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>All electric drives from Festo can be controlled via the CPX terminal using the control block CPX-CM-HPP. The control block therefore offers a simple, flexible and cost-effective way of controlling individual axes.</p> | <ul style="list-style-type: none"> No programming required. Quick configuration and diagnostics via CPX-FMT. Easy control of electric drives via CAN bus with the Festo Handling and Positioning Profile (FHPP). | <ul style="list-style-type: none"> Compatibility with all control systems via the bus node of the CPX terminal. All electric drive systems from Festo are uniformly controlled with FHPP. | <p>The CPX-CM-HPP offers a cost-effective fieldbus interface via CAN bus for up to 4 electric axes.</p> <ul style="list-style-type: none"> Cost advantages compared with I/O solutions even with systems having just 2 electric axes. |

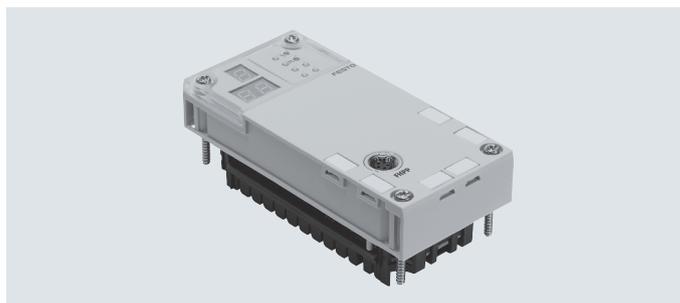
Data sheet

The control block CPX-CM-HPP is a module in the CPX terminal for controlling electric drives.

The control component is independent of the bus node used. This means that Festo's electric drive technology is compatible with all industrial communication interfaces.

The control block does not need to be programmed.

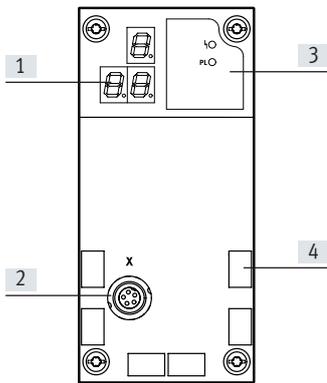
- Max. 4 individual electric axes can be controlled via CAN bus
- No programming required
- Standardised communication with the drives via the Festo Handling and Positioning Profile (FHPP)
- Quick configuration and diagnostics via CPX-FMT
- Simple, flexible and cost-effective



| General technical data | | |
|--------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------|
| Fieldbus interface | | 1x socket M9, 5-pin |
| Protocol | | FHPP |
| Max. address capacity inputs | [byte] | 32 |
| Max. address volume outputs | [byte] | 32 |
| LED display (product-specific) | | Error PL: Power supply |
| Device-specific diagnostics | | Diagnostic memory Channel and module-oriented diagnostics Undervoltage/short circuit of modules |
| Parameterisation | | Forcing of channels System parameters |
| Configuration support | | Operator unit CPX-MMI |
| Total number of axes | | 4 |
| Nominal operating voltage | [V DC] | 24 |
| Operating voltage range | [V DC] | 18 ... 30 |
| Mains buffering | [ms] | 10 |
| Intrinsic current consumption at nominal operating voltage | [mA] | Typically 80 |
| Degree of protection to EN 60529 (plug connector plugged in) | | IP65/IP67 |
| Dimensions W x L x H (including interlinking block) | [mm] | 50 x 107 x 55 |
| Product weight (without interlinking block) | [g] | 140 |
| Materials | | |
| Housing | | Reinforced PA PC |
| Note on materials | | RoHS-compliant |
| Technical data – Interfaces | | |
| Interface | | |
| Control interface | | CAN bus |
| Baud rate | [Mbps] | 1 |
| Operating and environmental conditions | | |
| Ambient temperature | [°C] | -5 ... +50 |
| Storage temperature | [°C] | -20 ... +70 |
| CE marking (see declaration of conformity) | | To EU Low Voltage Directive |

Data sheet

Connection and display components



- [1] 3-digit display
- [2] Control interface
- [3] LED display (product-specific)
- [4] Inscription labels

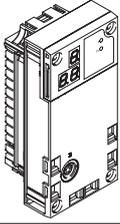
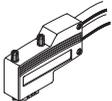
Pin allocation – Control interface

| | Pin | Signal | Meaning |
|-------------------------|---------|---------|---------------------------------------------------------|
| Socket M9, 5-pin | | | |
| | 1 | n.c. | Not connected |
| | 2 | n.c. | Not connected |
| | 3 | CAN_GND | CAN ground |
| | 4 | CAN_H | CAN high |
| | 5 | CAN_L | CAN low |
| | Housing | Shield | Cable shield must be connected to functional earth (FE) |

Permitted bus nodes/CEC

| Bus node/CEC | Protocol | Max. number of CPX-CM-HPP modules |
|--------------|-------------------|-----------------------------------|
| CPX-CEC... | – | 0 |
| CPX-FB6 | INTERBUS | 0 |
| CPX-FB11 | DeviceNet | 2 |
| CPX-FB13 | PROFIBUS | 2 |
| CPX-FB14 | CANopen | 1 |
| CPX-M-FB21 | INTERBUS | 0 |
| CPX-FB23-24 | CC-Link | 1 (as function module F23) |
| | | 0 (as function module F24) |
| CPX-FB33 | PROFINET RT, M12 | 2 |
| CPX-M-FB34 | PROFINET RT, RJ45 | 2 |
| CPX-M-FB35 | PROFINET RT, SCRJ | 2 |
| CPX-FB36 | EtherNet/IP | 2 |
| CPX-FB37 | EtherCAT | 2 |
| CPX-FB39 | Sercos III | 2 |
| CPX-FB40 | POWERLINK | 2 |
| CPX-M-FB41 | PROFINET RT | 2 |
| CPX-FB43 | PROFINET RT, M12 | 2 |
| CPX-M-FB44 | PROFINET RT, RJ45 | 2 |

Accessories

| Ordering data | | | |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------|----------------------------|
| Designation | | Part no. | Type |
| Control block | | | |
|  | For actuating up to 4 electric drives via CAN bus | 562214 | CPX-CM-HPP |
| Ordering data – Bus connection | | | |
| Designation | | Part no. | Type |
| Connecting cable | | | |
|  | Connecting cable | 2 m | 563711 NEBC-M9W5-K-2-N-LE3 |
| | | 5 m | 563712 NEBC-M9W5-K-5-N-LE3 |
|  | Plug for CAN bus interface, Sub-D, 9-pin, without terminating resistor | 533783 | FBS-SUB-9-WS-CO-K |
| Inscription labels | | | |
|  | Inscription label holder for connection block | 536593 | CPX-ST-1 |
| User documentation | | | |
|  | Manual – Control block CPX-CM-HPP | German | 568683 CPX-CM-HPP-DE |
| | | English | 568684 CPX-CM-HPP-EN |

Festo - Your Partner in Automation



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