

Control block CPX-CM-HPP



Control block CPX-CM-HPP

Key features

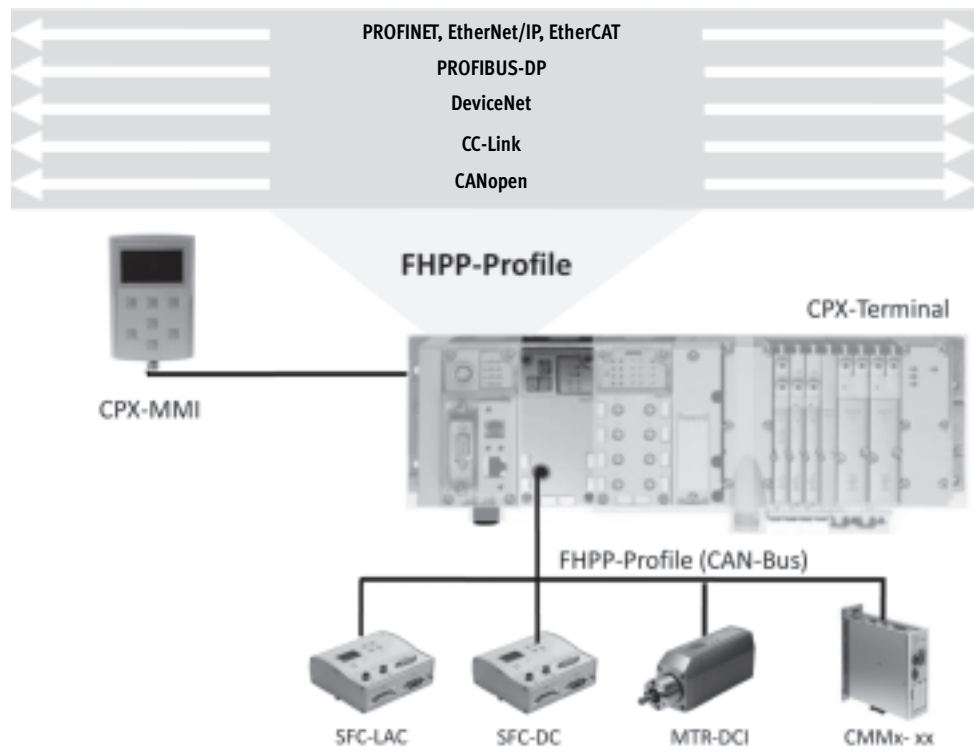
New options for controlling drive technology

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-level controller or 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 four individual electric axes can be connected via CAN bus.



Advantages for users

More options

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.

Simple


- No programming required.
- Quick configuration and diagnostics via the operator unit CPX-MMI.
- Easy control of electric drives via CAN bus with the Festo Handling and Positioning Profile (FHPP).

Flexible

- Compatibility with all control systems via the bus node of the CPX terminal.
- All electric drive systems from Festo are uniformly controlled with FHPP.

Cost-effective

- CPX-CM-HPP offers a cost-effective fieldbus interface via CAN bus for up to four electric axes.
- Cost advantages compared with I/O solutions in systems with as few as two electric axes.

-  - Note

Choose the control block CPX-CMXX for coordinated multi-axis movements.

Control block CPX-CM-HPP

Technical data

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 the operator unit CPX-MMI
- Simple, flexible and cost-effective



General technical data		
Fieldbus interface		1x socket M9, 5-pin
Protocol		FHPP
Max. address volume for inputs	[byte]	32
Max. address volume for outputs	[byte]	32
LED display (product-specific)		Error: 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
Power failure buffering	[ms]	10
Intrinsic current consumption at nominal operating voltage	[mA]	Typically 80
Protection class to EN 60529 (plug connector plugged in)		IP65/IP67
Dimensions W x L x H (incl. interlinking block)	[mm]	50 x 107 x 55
Product weight (without interlinking block)	[g]	140
Materials		
Housing		PA, reinforced PC
Note on materials		RoHS-compliant

Technical data – Interfaces		
Interface		
Control interface		CAN-Bus
Baud rate	[Mbps]	1

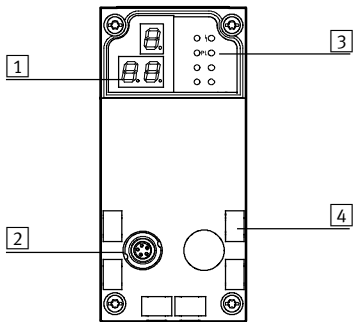
Operating and environmental conditions		
Ambient temperature	[°C]	-5 ... +50
Storage temperature	[°C]	-20 ... +70
CE mark (see declaration of conformity)		To EU Low Voltage Directive

Control block CPX-CM-HPP

Technical data



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
Plug 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	Screened	Cable screen must be connected to functional earth (FE)

Permitted bus nodes/FEC

Bus node/FEC	Protocol	Max. no. of CPX-CM-HPP modules
CPX-FEC	–	2
CPX-CEC	–	0
CPX-CEC-C1	–	0
CPX-CEC-M1	–	0
CPX-FB6	INTERBUS	0
CPX-FB11	DeviceNet	2
CPX-FB13	PROFIBUS-DP	2
CPX-FB14	CANopen	1
CPX-M-FB20	INTERBUS	0
CPX-M-FB21	INTERBUS	0
CPX-FB23-24	CC-Link	1 (function module F23)
		0 (function module F24)
CPX-FB32	EtherNet/IP	2
CPX-FB33	PROFINET, M12	2
CPX-M-FB34	PROFINET, RJ45	2
CPX-M-FB35	PROFINET, SCRJ	2
CPX-FB36	EtherNet/IP	0
CPX-FB38	EtherCAT	2

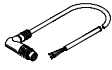
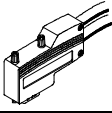
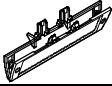
Ordering data


Designation	Part No.	Type
	Control block	562214 CPX-CM-HPP

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Accessories

FESTO

Ordering data – Bus connection				
Designation		Cable length [m]	Part No.	Type
	Connecting cable	2	563711	NEBC-M9W5-K-2-N-LE3
		5	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 label holder for manifold block		536593	CPX-ST-1

Documentation				
Designation		Language	Part No.	Type
	Manual – Control block CPX-CM-HPP	German	568683	P.BE-CPX-CM-HPP-DE
		English	568684	P.BE-CPX-CM-HPP-EN