Control block CPX-CM-HPP

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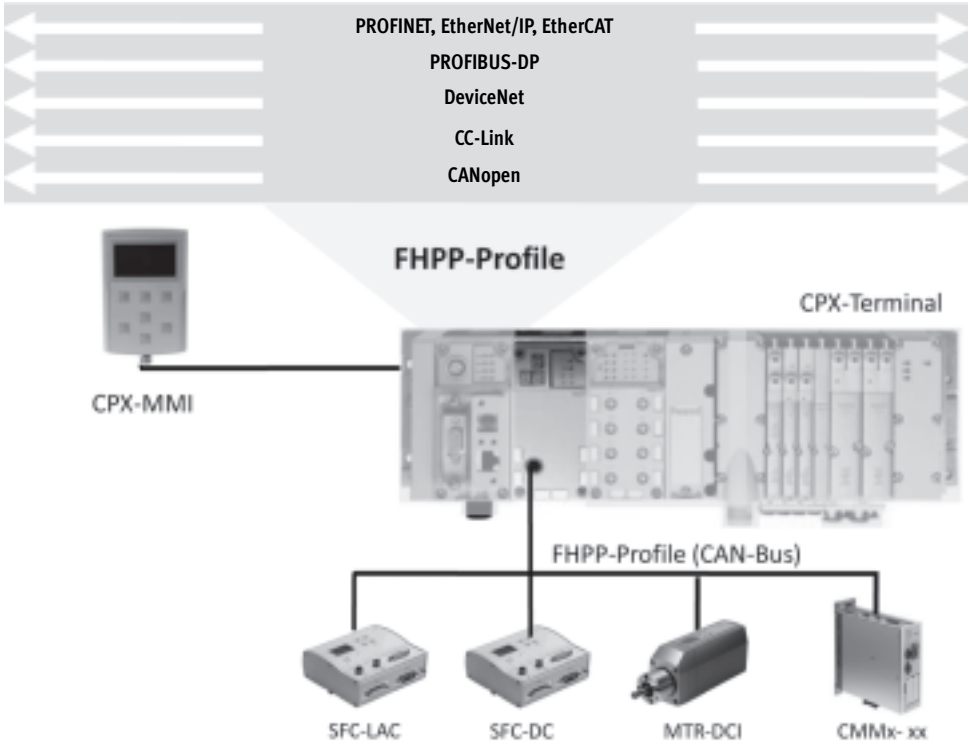
Key features

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.

Note

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

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.

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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

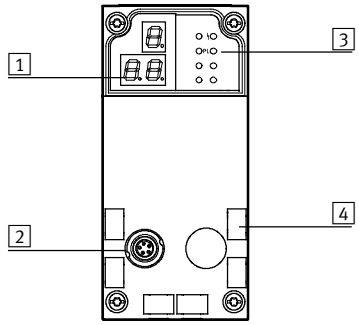
Control block CPX-CM-HPP

Technical data

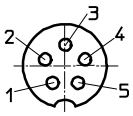
Technical data – Interfaces		
Interface		
Control interface		CAN-Bus
Baud rate	[Mbps]	1

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

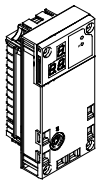
Connection and display components



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)

Permissible CPX modules		
CPX module	Protocol	Remarks
CPX-FEC	–	Revision 16 (R16) and above
CPX-CEC-...	–	In preparation
CPX-FB6	INTERBUS	Not available
CPX-FB11	DeviceNet	Revision 22 (R22) and above
CPX-FB13	PROFIBUS-DP	Revision 23 (R23) and above
CPX-FB14	CANopen	Revision 24 (R24) and above
CPX-FB23	CC-Link	In preparation
CPX-FB32	EtherNet/IP	In preparation
CPX-FB33, FB34, FB35	PROFINET	In preparation
CPX-FB38	EtherCAT	In preparation

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

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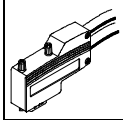
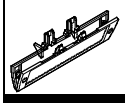
Accessories

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**