

Control block CPX-CM-HPP



Control block CPX-CM-HPP

Key features

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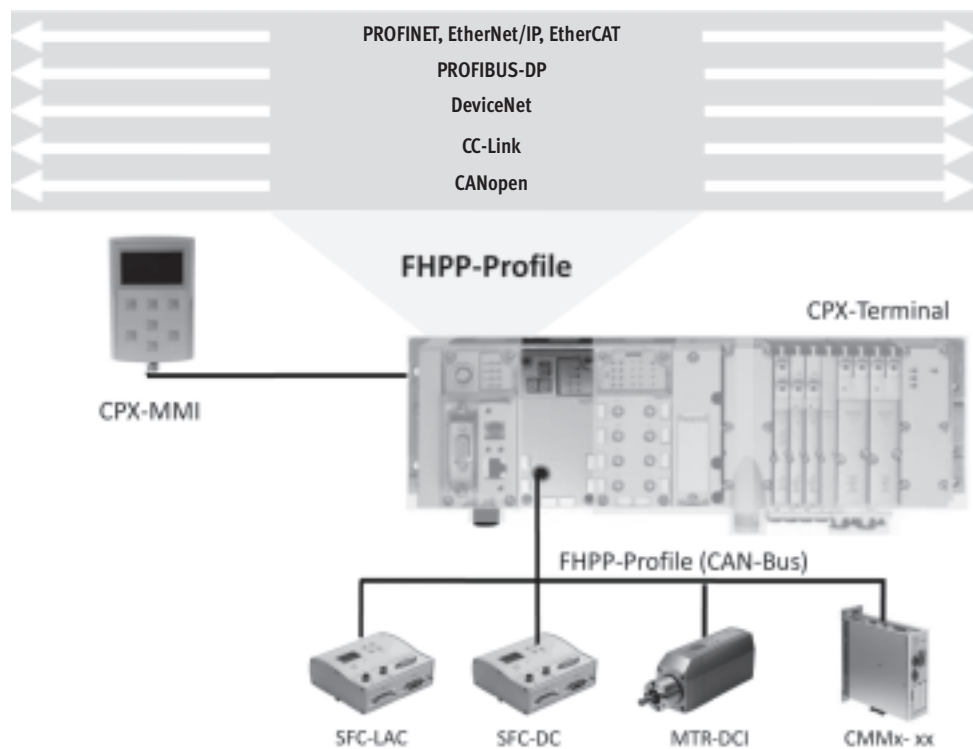
New options for controlling drive technology

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

Control block CPX-CM-HPP

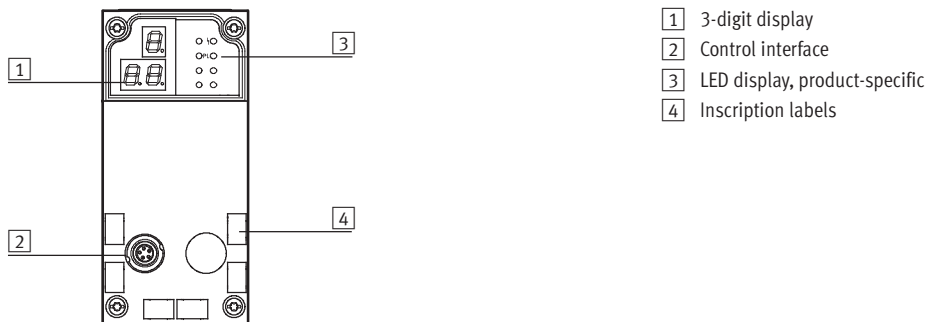
Technical data

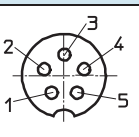
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Technical data – Interfaces		
Interface		
Control interface		CAN-Bus
Baud rate	[Mbps]	1

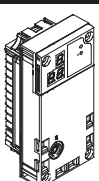
Operating and environmental conditions		
Ambient temperature	[°C]	–5 ... +50
Storage temperature	[°C]	–20 ... +70
CE mark (see declaration of conformity)		To EU Low Voltage Directive

Connection and display components



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)


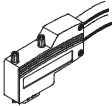
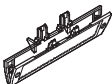
Permissible CPX modules		
CPX module	Protocol	Remarks
CPX-FEC	–	Revision 16 (R16) and above
CPX-CEC-...	–	In preparation
CPX-FB6	INTERBUS	Not available
CPX-FB11	DeviceNet	Revision 22 (R22) and above
CPX-FB13	PROFIBUS-DP	Revision 23 (R23) and above
CPX-FB14	CANopen	Revision 24 (R24) and above
CPX-FB23	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

Control block CPX-CM-HPP

Accessories

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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

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
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Complete Systems
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The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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