

# Control block CPX-CM-HPP



# Control block CPX-CM-HPP

Key features

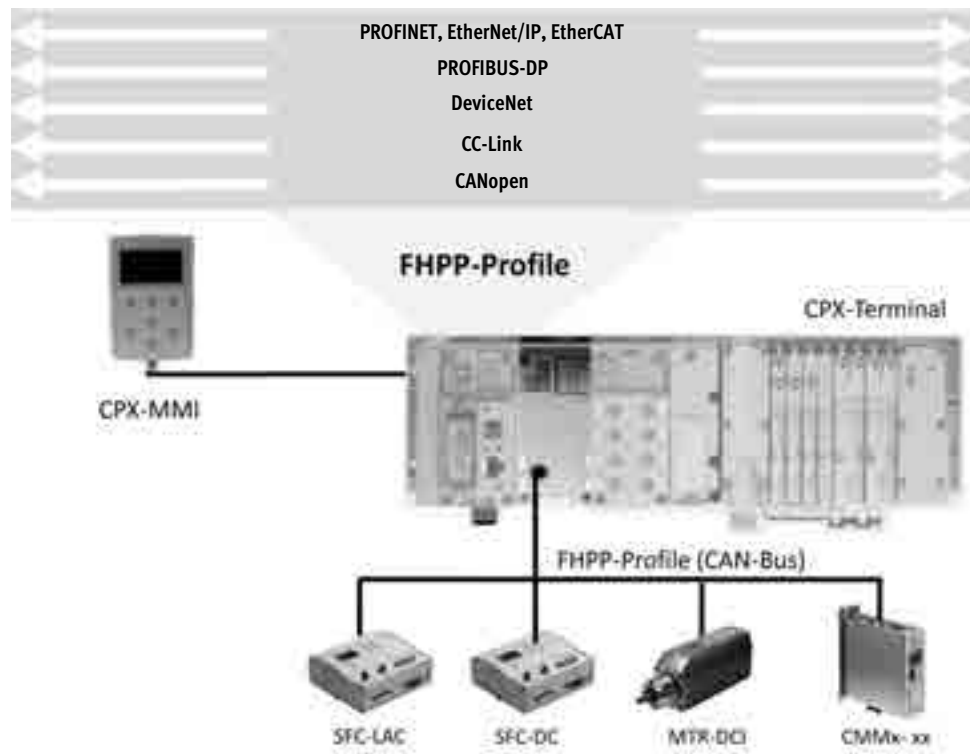
## New options for controlling drive technology

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.

# 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 programmed.

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

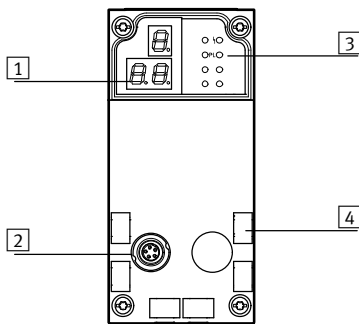
Operating and environmental conditions		
Ambient temperature	[°C]	-5 ... +50
Storage temperature	[°C]	-20 ... +70
CE mark (see declaration of conformity)		To EU Low Voltage Directive

# 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

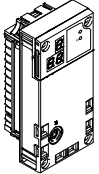
	Pin	Signal	Meaning
Plug M9, 5-pin			
	1	n.c.	Not connected
	2	n.c.	Not connected
	3	CAN_GND	CAN ground
	4	CAN_H	CAN high
	5	CAN_L	CAN low
Housing	Screened	Cable screen must be connected to functional earth (FE)	

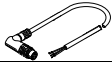
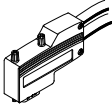
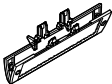

## Permitted bus nodes/FEC

Bus node/FEC	Protocol	Max. no. of CPX-CM-HPP modules
CPX-FEC	–	2
CPX-CEC...	–	0
CPX-FB6	INTERBUS	0
CPX-FB11	DeviceNet	2
CPX-FB13	PROFIBUS	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 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-FB38	EtherCAT	2
CPX-FB39	Sercos III	2
CPX-FB40	POWERLINK	2
CPX-M-FB41	PROFINET RT	2

# Control block CPX-CM-HPP

Accessories

Ordering data		Part No.	Type
Designation			
Control block			
	Max. 4 individual electric axes can be controlled via CAN bus	562214	CPX-CM-HPP

Ordering data – Bus connection		Part No.	Type
Designation			
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 label			
	Inscription label holder for manifold block	536593	CPX-ST-1
Documentation			
	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 and Company Overview

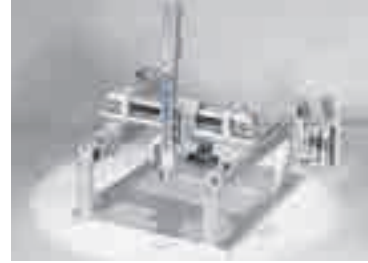
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**Custom Automation Components**  
Complete custom engineered solutions



**Custom Control Cabinets**  
Comprehensive engineering support and on-site services



**Complete Systems**  
Shipment, stocking and storage services

### 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 & drivers



**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 16,000 employees in 60 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.

### Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

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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