

## Control block CPX-CM-HPP

**FESTO**

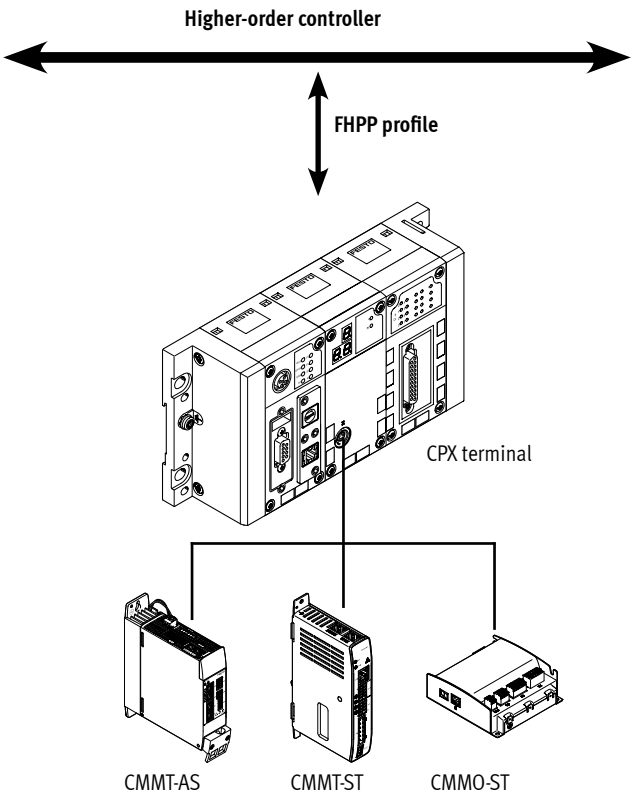


Key features

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"><li>• No programming required.</li><li>• Quick configuration and diagnostics via CPX-FMT.</li><li>• Easy control of electric drives via CAN bus with the Festo Handling and Positioning Profile (FHPP).</li></ul>	<ul style="list-style-type: none"><li>• Compatibility with all control systems via the bus node of the CPX terminal.</li><li>• All electric drive systems from Festo are uniformly controlled with FHPP.</li></ul>	<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"><li>• Cost advantages compared with I/O solutions even with systems having just 2 electric axes.</li></ul>

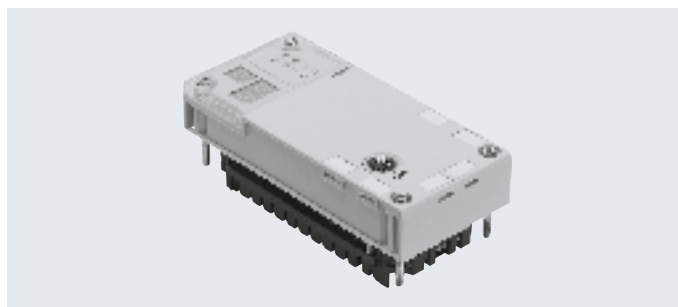
## Data sheet

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.

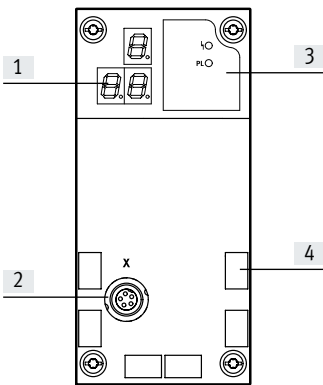
- Max. 4 individual electric axes can be controlled via CAN bus
- No programming required
- Standardised communication with the drives via the Festo Handling and Positioning Profile (FHPP)
- Quick configuration and diagnostics via CPX-FMT
- Simple, flexible and cost-effective



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

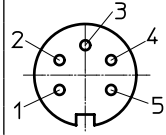
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Connection and display components



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

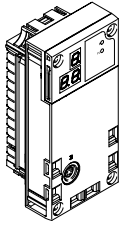

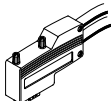
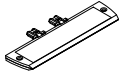

Pin allocation – Control interface

	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-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