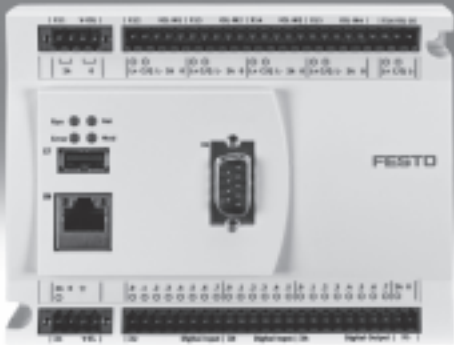


Controllers CECC



Key features

Controller



State-of-the-art programming

- New configurator for IO-Link masters

- Multiple controllers in one project
- Improved troubleshooting function
- Simplified project navigation

The controllers CECC (CECC-D) offer the following basic functions:

- 12 digital inputs, 8 digital outputs, additionally 2 high-speed counters up to 250 kHz
- Ethernet 10/100 MBd, Modbus TCP client/server, EasyIP, TCP/IP, OPC Server available

- CANopen master: connection of the electric drives
- USB interface for data transfer
- Can be connected directly with modern HMI devices: CDPX

- This variant of the CECC offers four IO-Link masters and one IO-Link device interface
- The integrated IO-Link interface of the CECC-LK enables quick and easy connection of Festo valve terminals and sensors to a controller

- All modern, compact valve terminals from the CTEU series can be connected to IO-Link masters: VTUB, VTUG, MPA, CPV, VTOC and upcoming devices, as well as the input box CTSL

The CECC-LK can be connected to a combination of node CTEU and CAPC on various fieldbuses via the IO-Link device interface:

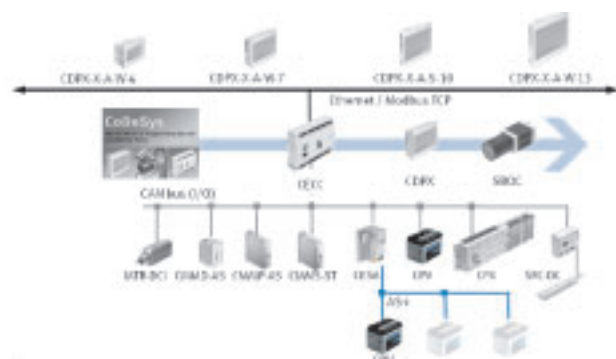
- PROFIBUS
- EtherCAT
- DeviceNet
- CANopen
- AS-interface



The CECC can communicate with all electric drive controllers from Festo and actuate all valve terminals via CANopen.

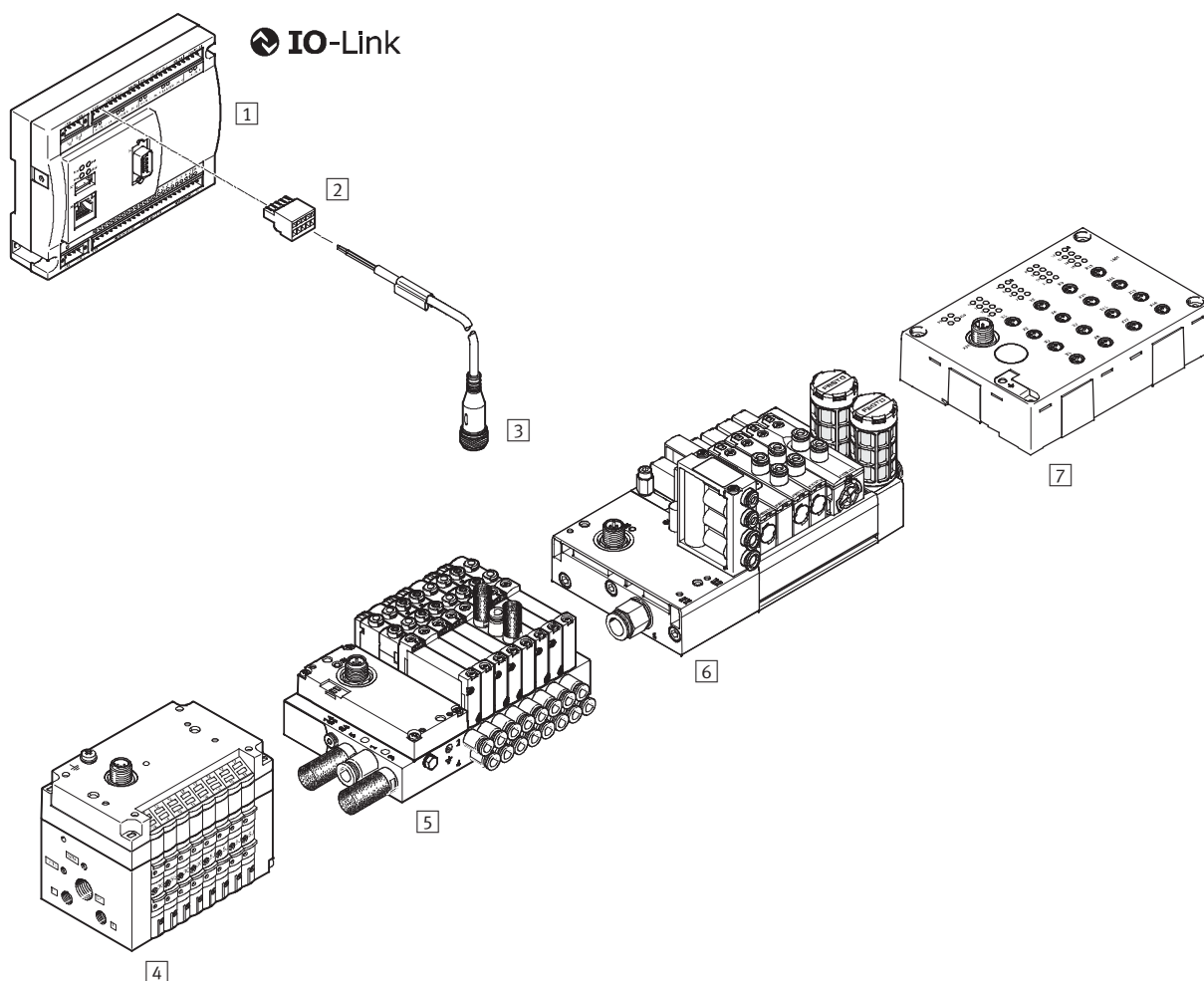
The CECC communicates with other controllers and operator units from Festo via Ethernet. For example with the modern, new HMI device series CDPX and the camera SBOx-Q for image evaluation.

CECC with CANopen



Controllers CECC

Peripherals overview



Mounting attachments and accessories			
	Brief description		→ Page/Internet
1 Controller CECC	The integrated IO-Link interface of the CECC enables quick and easy connection of Festo valve terminals and sensors to a controller		4
2 Plug NECC	Plug connector for self-assembly with 2, 5, 6, 8 or 24 pins		8
3 Connecting cable NEBU	–		9
4 Valve terminal CPV	–		cpv
5 Valve terminal VTUG	–		vtug
6 Valve terminal VTUB	–		vtub
7 Input module CTSL	–		cteu
– Software CoDeSys V3	The software CoDeSys V3 with the order code GSPF-CD-3 enables standardised programming according to IEC 61131-3 using object-oriented additional functions		9

Controllers CECC

Technical data

FESTO

-  Voltage
19.2 ... 30 V DC
-  Temperature range
0 ... +50 °C



General technical data		
Type	CECC-LK	CECC-D
CPU data	400 MHz processor	
Status displays	LED	
Electrical connection technology for I/O	Socket strip, grid 3.5 mm	
Resistance to vibration	As per EN 61131-2	
Resistance to shock	As per EN 61131-2	
Relative air humidity [%]	95, non-condensing	
Protection class	IP20	
Electrical protection class	III	
Product weight [g]	200	
Note on materials	RoHS-compliant	

Digital inputs		
	CECC-LK	CECC-D
Number	12	
Switching logic	Positive logic (PNP)	
Fast clock pulse inputs	2, each with max. 200 kHz	
Input signal delay	Typically 3 ms	
Input voltage [V DC]	24	
Nominal value for TRUE [V DC]	≥ 15	
Nominal value for FALSE [V DC]	≤ 5	
Electrical isolation	Yes, via optocoupler	
Status display	LED	
Permissible connecting cable length [m]	30	

Digital outputs		
	CECC-LK	CECC-D
Number	8	
Switching logic	Positive logic (PNP)	
Contact	Transistor	
Output voltage [V DC]	24	
Output current [mA]	500	
Electrical isolation	Yes, via optocoupler	
Status display	LED	
Switching frequency [kHz]	Max. 1	
Protection against short circuit	Yes	

Controllers CECC

Technical data

Serial interfaces		
	CECC-LK	CECC-D
USB interface	USB 1.1	
Fieldbus interface type	CAN bus	
Fieldbus interface		
Connection technology	Sub-D plug, 9-pin	
Transmission rate [kbps]	125; 250; 500; 800; 1,000	
	Adjustable via software	
Galvanic isolation	Yes	

Ethernet		
	CECC-LK	CECC-D
Number	1	
Connector plug	RJ45	
Supported protocols	TCP/IP, EasyIP, Modbus TCP	
Transmission speed [Mbps]	10/100	
Protocol	CANopen	
	IO-Link	–
	I-Port	–
	Modbus TCP	

Programming		
	CECC-LK	CECC-D
Programming software	CoDeSys provided by Festo	
Programming language according to IEC 61131-3	SFC	
	IL	
	FCH	
	LDR	
	ST	

Operating and environmental conditions		
	CECC-LK	CECC-D
Operating voltage [V DC]	19.2 ... 30	
Current consumption at 24 V DC [mA]	100	
Ambient temperature [°C]	0 ... 55	
Storage temperature [°C]	–25 ... +70	
CE marking	To EU EMC Directive	
Approval	C-Tick	

Controllers CECC

Technical data

FESTO

IO-Link		
	CECC-LK	CECC-D
Protocol	Device V 1.0	–
	Master V 1.1	–
Connection technology	Plug	–
	Cage clamp	–
	Device, 3-pin	–
	Master, 5-pin	–
Communication mode	Configurable via software	–
	Device COM1 (4.8 kB), COM2 (38.4 kB), COM3 (230 kB)	–
	Master SIO, COM1 (4.8 kB), COM2 (38.4 kB), COM3 (230 kB)	–
Port type	Device A	–
	Master B	–
Number of ports	Device 1	–
	Master 4	–
Master, output current [A]	3.5/port	–
Communication	C/Q green LED	–
	C/Q red LED	–
Ready status display	L+ green LED on	–
	L+ green LED off	–
Process data width OUT	Master parameterisable 2 - 32 bytes	–
Process data width IN	Master parameterisable 2 - 32 bytes	–
Memory card	Master 2 kB per port	–
Minimum cycle time	Device 3.2 ms	–
	Master 5 ms	–
Device ID	0x550000	–
	0x550001	–
	0x550002	–
	0x550003	–
	0x550004	–

Controllers CECC

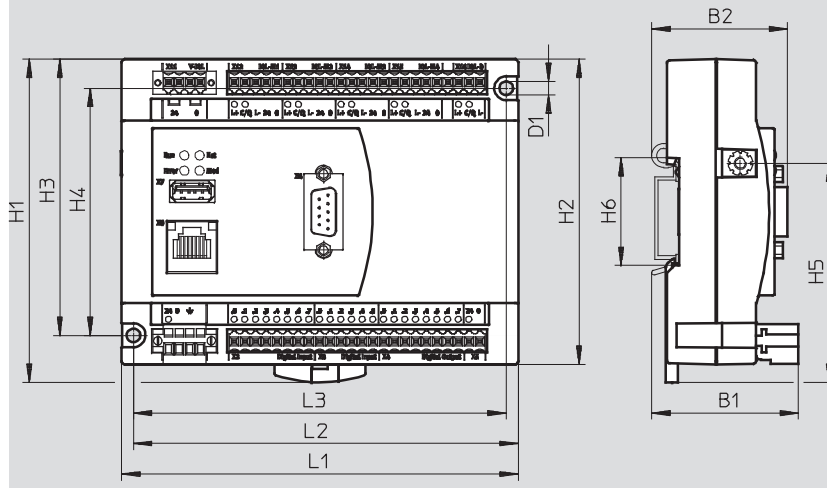
Technical data

FESTO

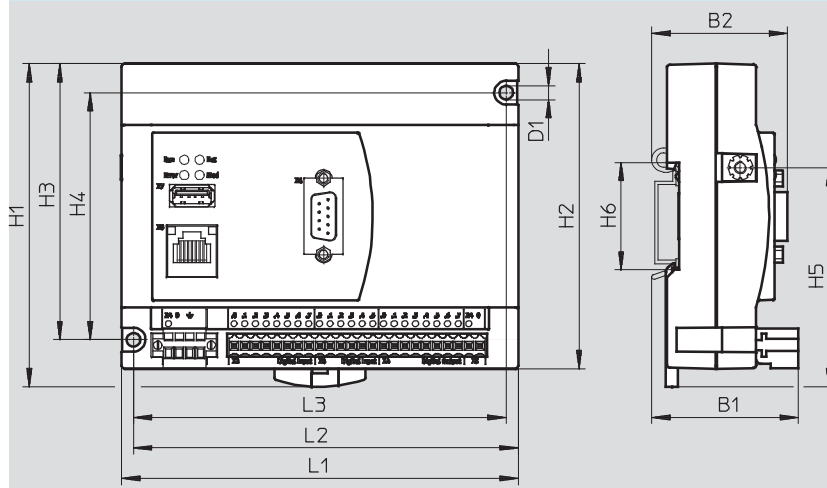
Dimensions

Download CAD data → www.festo.com

CECC-LK



CECC-D



Type	B1	B2	D1 Ø	H1	H2	H3	H4	H5	H6	L1	L2	L3
CECC-LK	48.15	44.6	4.5	106	100	90.5	81	72	35.2	130	126.11	122.2
CECC-D	48.15	44.6	4.5	106	100	90.5	81	72	35.2	130	126.11	122.2

Ordering data

Controllers	Brief description	Part No.	Type
CECC-LK	IO-Link master, Ethernet integrated	574418	CECC-LK
CECC-D	With 12 digital inputs and 8 digital outputs	574415	CECC-D

Controllers CECC

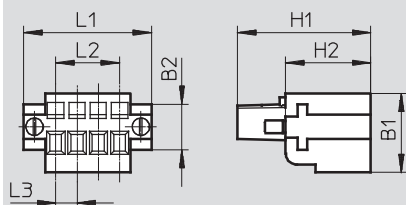
Accessories

FESTO

Dimensions

Download CAD data → www.festo.com

Plug

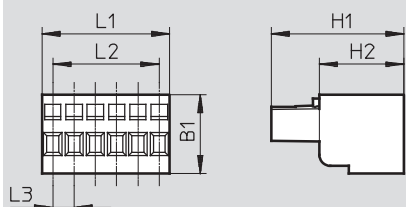


Type	B1	B2	H1	H2	L1	L2	L3
NECC-L2G4-C1-M	13	7.5	21.9	14	21	10.5	3.5

Dimensions

Download CAD data → www.festo.com

Plug



Type	B1	H1	H2	L1	L2	L3
NECC-L2G2-C1	13	21.9	14	7	3.5	3.5
NECC-L2G5-C1				17.5	14	
NECC-L2G6-C1				21	17.5	
NECC-L2G8-C1				28	24.5	
NECC-L2G24-C1				84	80.5	

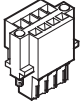
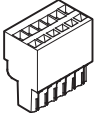
Materials

Corrosion resistance class CRC ¹⁾	1
Note on materials	RoHS-compliant

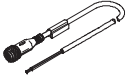
1) Corrosion resistance class 1 according to Festo standard 940 070
Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Controllers CECC

Accessories

Ordering data				
	Description	PU ²⁾	Part No.	Type
Plug				
	Plug connector for self-assembly	1	575303	NECC-L2G4-C1-M
	Plug connector for self-assembly, 2-pin	1	575302	NECC-L2G2-C1
	Plug connector for self-assembly, 5-pin	1	575304	NECC-L2G5-C1
	Plug connector for self-assembly, 6-pin	1	575305	NECC-L2G6-C1
	Plug connector for self-assembly, 8-pin	1	575306	NECC-L2G8-C1
	Plug connector for self-assembly, 24-pin	1	575307	NECC-L2G24-C1
	Sub-D plug, 9-pin with screw terminal, protection class IP40	1	576031	NECC-S1G9-C2-M

2) Packaging unit

Ordering data			
	Description	Part No.	Type
Connecting cables			
	Up to 5 m long	539052	NEBU-M12W5-P-2-N-LE5
Programming software			
	This software is optimised for configuring, programming, commissioning and maintaining automation solutions	542000	GSPF-CDS-3