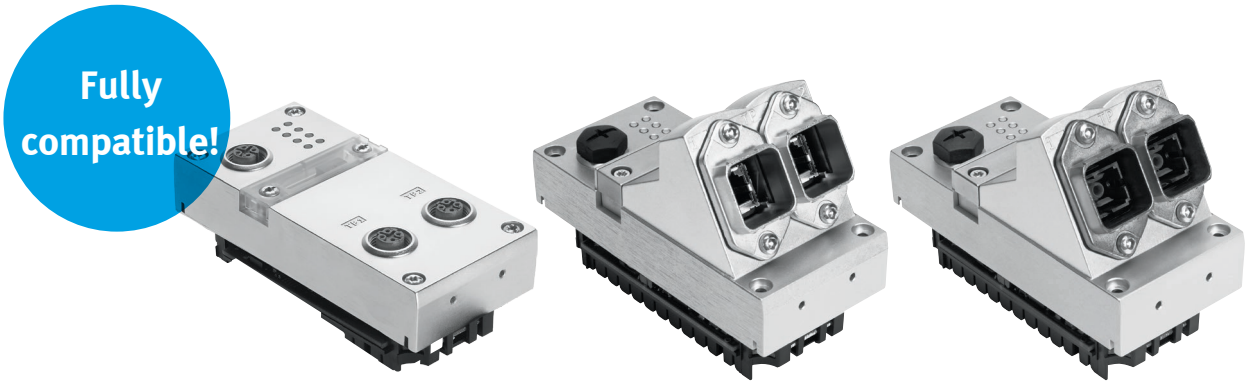
CPX terminal
PROFINET bus interface CPX-FB43, CPX-M-FB44/45



Seamless connectivity!

Highlights

- Fully compatible with existing PROFINET bus interfaces CPX-FB-3x
- State-of-the-art PROFINET technology with the latest functions
  - S2 system redundancy
  - MRPD for uninterruptible ring redundancy
  - Voltage monitoring
  - NTP time synchronisation
- Maximum function integration for complete electric and pneumatic applications
- Can be combined with programmable decentralised controllers

PROFINET, the world's leading Ethernet-based protocol for industrial automation, offers you direct access and seamless connectivity from the management level to the field level. The new bus interfaces FB43/44/45 of the automation platform CPX are equipped with the latest hardware and software chip technology and are fully compatible with the predecessor series FB3x.

Winning combination: PROFINET and CPX
As an automation platform, valve terminal partner and remote I/O in one, the modular electrical terminal CPX is the optimal platform for electrical peripherals. You can integrate pneumatic and electrical control chains easily, quickly and flexibly into all automation concepts and company-specific standards. This is seamless connectivity in all PROFINET networks, from the control level to the field level.

New generation, fully compatible
Based on the latest ERTEC200P chip technology, the PROFINET modules provide all the functions of the tried-and-tested CPX-FB3x on the CPX terminal such as remote diagnostics and maintenance or data visualisation, with degree of protection IP65/67. Since they are fully compatible with existing CPX configurations without the need for modification, you can easily modernise any existing Festo CPX.

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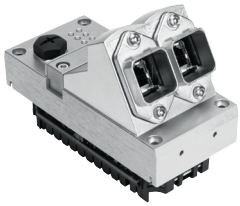
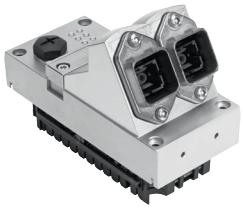
Modernised bus interfaces at a glance

CPX-FB43
Bus connection:
2x M12, D-coded



CPX-M-FB44
Bus connection:
2x RJ45 push-pull



CPX-M-FB45
Bus connection:
2x SCRJ push-pull
(fibre-optic cable)

Bus interface features

- Can be used as remote I/O or remote controller
- Transmission rate: 100 Mbps
- Degree of protection IP65/67
- Maximum segment length
  - FB43 and 44: 100 m
  - FB45: 50 m
- CPX- and PROFINET-specific status LEDs
- Cyclical data exchange in RT and IRT
- Fast start-up
- PROFIenergy, PROFIsafe

Fully compatible
The new bus interfaces FB43/44/45 replace the previous FB33/34/35 interfaces. The series FB3x will continue to be available for spare parts. The fully interchangeable technology means that existing systems can be modernised with ease.

Note
FB4x no longer supports a memory card

The technology in detail

Integrated supply and load voltage monitoring
It detects voltage losses when the bus subscribers are linked.
- Measurement of 24 V power supply and load supply
- The measurement data are indicators, and can be displayed in the web server as device information

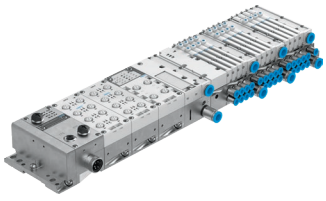
Network Time Protocol (NTP)
The bus interfaces (clients) are time-synchronised with the NTP server.
- Calculation of connection delay and local time delay
- Accuracy: ±0.5 s
- Automatic synchronisation for PROFINET and gateway
- Integrated SNTP client with full NTP compatibility

MRPD approach for media redundancy with planned duplication
The bus interfaces support the MRPD and MRP protocols.
- Prevents malfunctions or loss of communication caused by a cable or device defect during the transfer of cyclical data
- Prerequisite: ring topology where data is transmitted in both directions.

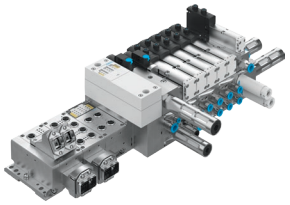
S2 system redundancy
The S2 system redundancy guarantees uninterruptible processes.
- The process continues to run in the event of a CPU fault
- The CPU switchover takes place automatically
- S2 system redundancy can optionally be combined with MRPD or MRP redundancy and its ring topology

CPX terminal and valve terminals

CPX-FB43 with MPA
Ideal for extended requirements for diagnostics and redundancy, particularly in architectures with Siemens PCS and S7 controllers as well as ABB control systems.



CPX-FB44/45 with VTSA
These bus interfaces with their push-pull connection technology are standard in the automotive body shop and other trades.



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