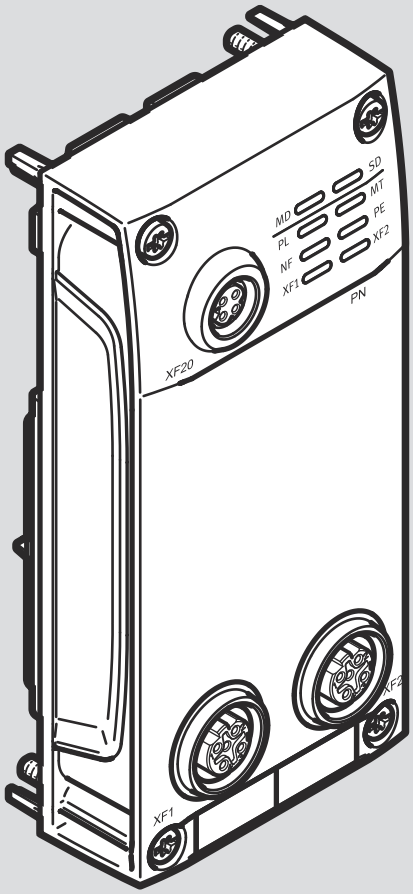
CPX-AP-A-PN-M12
PROFINET interface



FESTO

Operating instruction

8235786

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2025-05c
[8235788]

Original instructions

Table of contents

1 About this document

1.1 Applicable documents

All available documents for the product ➔ www.festo.com/sp.

Document	Content
Operating instructions remote I/O system CPX-AP-A	Instruction manual and important information on the assembly, electrical installation and maintenance tasks and also description of the remote I/O system CPX-AP-A

Tab. 1: Applicable documents

1.2 Product version

This document refers to the following product versions:

Product	Version
CPX-AP-A-PN-M12	PROFINET interface CPX-AP-A-PN-M12 from revision 1

Tab. 2: Product version

The product version can be determined from the product labelling.

There may be an updated version of this document for this or later product versions ➔ www.festo.com/sp.

1.3 Product labelling

The product labelling and the Data Matrix Code are printed on the housings of the modules. Scanning the Data Matrix Code with an appropriate device opens the Festo Internet page with documents appropriate for the product. Alternatively, the Product Key (11-digit alphanumeric code on the product labelling) can be entered in the search field ➔ www.festo.com/sp.

1.4 Specified standards

Version		
IEC 60204-1:2016-10		IEC 61784:2014-08
IEC 60364-4-41:2005-12		IEC 61918:2018-09
IEC 61158:2014-07		IEEE 802.3:2014-00

Tab. 3: Standards specified in the document

2 Safety

2.1 Safety instructions

- Only use the product if it is in perfect technical condition.
- Observe the identifications on the product.
- Store the product in a cool, dry environment protected from UV and corrosion. Keep storage times short.
- Before working on the product, switch off the power supply and secure it against being switched on again.

2.2 Intended use

The PROFINET interface is intended for use as an interface between a remote I/O system CPX-AP-A and a higher-order controller by integration into a PROFINET IO network.
Use the product as follows:
- Use only in an industrial environment. Outside industrial environments, e.g. in commercial and residential/mixed-use areas, it may be necessary to take measures to suppress radio interference.
- Use only in combination with modules and components that are approved for the applicable product variant ➔ www.festo.com/catalogue.

2.3 Training of qualified personnel

Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. The qualified personnel have skills and experience in dealing with electrical (open-loop) control technology.

2.4 Cyber security measures

Accidental or improper execution of functions on the product can lead to failure or malfunction of the product and thus the entire connected system.
In addition, unauthorised access to information stored on the product may be possible. The system operator must therefore take appropriate measures to prevent accidental or improper access to the product. Cyber security information ➔ www.festo.com/psirt.

Access with Festo service tools

Function	Description	Port	Operation
Search	The device can be found on the network using a search protocol.	990 (UDP)	☑
Network	The device supports the display and setting of the network parameters.	990 (UDP)	☐
Firmware	The device supports the download of a new firmware version.	69 (UDP) 7508 (TCP)	☐
Homepage	The device provides an information page for Internet browsers.	80 (TCP)	☑
FAS	The device supports the current version of the "Festo Automation Suite" application as well as the parameterisation and diagnostics of CPX-AP with FAS.	7508 (TCP)	☑
Identification	The device supports the prompt for identification (for example, a flashing LED).	7508 (TCP)	☑
Reboot	The device can be restarted.	991 (UDP) 7508 (TCP)	☐
☐ To avoid potential damage to the system do not perform the function during operation. ☑ The function can be executed during operation.			

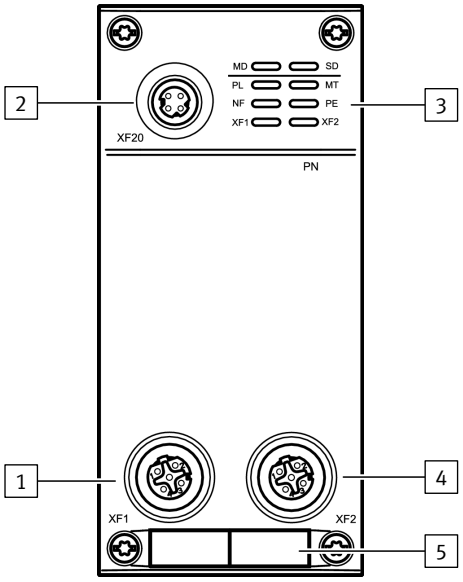
Tab. 4: Functions available via the protocols used by Festo service tools

3 Additional information

- Contact the regional Festo contact if you have technical problems ➔ www.festo.com.
- Accessories and spare parts ➔ www.festo.com/catalogue.
- Cyber security information ➔ www.festo.com/psirt.

4 Product overview

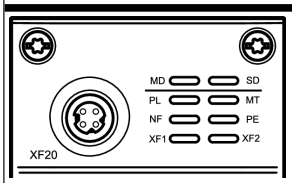
4.1 Product design



1 PROFINET communication connection [XF1]
2 Connection for system communication [XF20]
3 LED display
4 PROFINET communication connection [XF2]
5 Inscription label (optional)

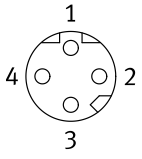
Fig. 1: Product design

4.2 LED indicators

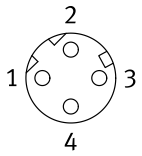
	LED	Meaning
	MD	Module diagnostics (green, red)
	PL	Load supply (green, red)
	NF	Network fault (red)
	XF1	Network connection (green)
	SD	System diagnostics (green, red)
	MT	Module diagnostics (yellow)
	PE	PROFIenergy (green)
	XF2	Network connection (green)

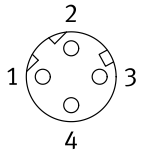
Tab. 5: LED indicators

4.3 Connecting elements

Connection for system communication [XF20]			
Socket M8, 4-pin, D-coded		Signal	
	1	RX–	Received data –
	2	TX+	Transmitted data +
	3	RX+	Received data +
	4	TX–	Transmitted data –
	Thread	Shield	Functional earth FE

Tab. 6: Connection for system communication

Connection PROFINET network [XF1], [XF2]			
Socket M12, 4-pin, D-coded		Signal	
	1	TD+	Transmitted data +
	2	RD+	Received data +
	3	TD–	Transmitted data –

Connection PROFINET network [XF1], [XF2]			
Socket M12, 4-pin, D-coded		Signal	
	4	RD–	Received data –
	Thread	Shield	Functional earth FE

Tab. 7: Network port

5 Function

The product, installed as a device in a PROFINET IO network, establishes the connection between a higher-order controller and the modules in a remote I/O system CPX-AP-A.
Data are transferred based on Industrial Ethernet following the IEEE 802.3 protocol. Communication is in real-time, using the Real-Time Protocol (RT) or the Isochronous Real-Time Protocol (IRT).
The product has two equivalent Ethernet interfaces with integrated switch, and therefore supports both star and line topology. The network can be divided into segments using additional switches and routers.

Device description file

A device description file (GSDML file) is used for project engineering of the PROFINET interface in the higher-order controller software.
It includes all required information for parameterisation of the remote I/O system CPX-AP-A via controller software.

The device description file is available at the Festo Support Portal
➔ www.festo.com/sp.

Identification & Maintenance (I&M)

The “Identification & Maintenance” (I&M) function serves as an electronic rating plate of the interface and offers uniform, manufacturer-independent access to device-specific online information over the network.

PROFIenergy

The product supports the PROFIenergy profile for energy management. This makes it possible to switch off specific consumers that are not required in order to reduce energy demand.

Crossover detection (auto MDI/MDI-X)

The product supports crossover detection (auto MDI/MDI-X), which means that there is the option of using patch cables or crossover cables.

When using patch cables and crossover cables in the same network, crossover detection must be activated in the higher-order controller.

Priority start-up (Fast Start-Up)

The fast start-up function ensures that the remote I/O system CPX-AP-A can start up quickly.

When using the “Fast Start-Up” function, crossover detection (auto MDI/MDI-X) must be deactivated.

6 Mounting

- Carry out assembly in accordance with the "Operating Instructions remote I/O system CPX-AP-A" ➔ 1.1 Applicable documents.

7 Installation

- Carry out installation in accordance with the "Operating Instructions remote I/O system CPX-AP-A" ➔ 1.1 Applicable documents.
- PROFINET Use network cables as described in the cable specification ➔ 11 Technical data.

7.1 Connecting cables

⚠ WARNING

Risk of injury due to electric shock.

- For the electric power supply, use SELV or PELV circuits that guarantee a reliable electric disconnection from the mains network.
- Observe IEC 60204-1/EN 60204-1.

1. Switch off the power supply.
2. Use a suitable torque screwdriver with socket to tighten union nuts.
   – For example, use PHOENIX CONTACT SAC BIT M8-D10 with a tightening torque of 0.4 Nm ± 15% for M8. Different from the information for connecting cables.
   – For example, use PHOENIX CONTACT SAC BIT M12-D15 with a tightening torque of 0.6 Nm ± 10% for M12. Different from the information for connecting cables.
3. Close the unused connections with cover caps to ensure IP protection.

8 Commissioning

NOTICE

Unauthorised Access to the Device Can Cause Damage or Malfunction.

- When connecting the device to a network, protect the network from unauthorised access.
  Standards for security in information technology can be used for network protection measures, e.g. IEC 62443, ISO/IEC 27001.

NOTICE

Malfunction due to switching on the higher-order controller and the remote I/O system CPX-AP in the incorrect sequence.

- Switch on the higher-order controller and remote I/O system CPX-AP in accordance with the preset order of the network used.

1. Set up an automation project for the higher-order controller using suitable software.
2. Load the device description file into the software.
3. Configure the remote I/O system CPX-AP-A in the software:
   – System structure
   – Network addressing
   – Address assignment of the modules ➔ Instruction manual remote I/O system CPX-AP-A
4. Upload the automation project to the higher-order controller.

Response of the display components of the module after error-free commissioning

After error-free commissioning the LEDs [MD], [SD] and [PL] are green. The LEDs [XF1] and [XF2] light up green when there is a network connection.

Information on troubleshooting in the event of different response:
➔ 1.1 Applicable documents
➔ 10 Diagnostics

9 Parameterisation

Various parameters are available for reading out information about the modules in a remote I/O system CPX-AP-A or CPX-AP-I and for configuring the modules for the application.

Standard parameters

ID	Parameters	Number of instances[1]	Data type	Access[2]	Array size
246	Fieldbus serial number	1	UINT32	ro	–
791	Product key	1	CHAR	ro	12
960	Firmware version	1	CHAR	ro	40
20000	Module code	1	UINT32	ro	–
20085	Measured value of temperature AP-ASIC	1	INT16	ro	–
20087	Current measured value of logic supply (PS)	1	UINT16	ro	–
20088	Current measured value of load supply (PL)	1	UINT16	ro	–
20093	Hardware version	1	UINT8	ro	–
20118	Application-specific identification	1	CHAR	rw	32
11295004	I&M 2 Date of installation	1	CHAR	rw	17

1) Counting starting at 0.
2) ro = read only; rw = read write

Tab. 8: Standard parameters

Module parameters

ID	Parameters	Number of instances[1]	Data type	Access[2]	Array size
12001	IP address	1	UINT32	ro	–
12002	Subnet mask	1	UINT32	ro	–
12003	Gateway address	1	UINT32	ro	–
12004	Active IP address	1	UINT32	ro	–
12005	Active subnet mask	1	UINT32	ro	–
12006	Active gateway address	1	UINT32	ro	–
12007	MAC address	1	UINT8	ro	6
20022	Configuration for load supply (PL) voltage monitoring – 0: load supply monitoring inactive – 1: load supply monitoring active, under-voltage diagnosis suppressed in case of switch-off – 2: load supply monitoring active	1	ENUM_ID	rw	–
20063	Operating hour counter	1	UINT32	ro	–
20064	Power-on counter	1	UINT32	ro	–
20120	Activation of the web server	1	BOOL	rw	–
20124	Startup completed	1	BOOL	ro	–

ID	Parameters	Number of instances[1]	Data type	Access[2]	Array size
11295001	Name of station	1	CHAR	rw	240
11295002	I&M 1 System identification	1	CHAR	rw	33
11295005	I&M 3 Additional designation	1	CHAR	rw	55

1) Counting starting at 0.
2) ro = read only; rw = read write

Tab. 9: Module parameters

10 Diagnostics

10.1 Diagnostics options

Diagnostics via LED displays System status and network status and errors are displayed directly on the module by LED indicators ➔ 10.2 LED indicators.

Diagnostics via web server Read access to diagnostics messages via the integrated webserver ➔ 10.4 Diagnostics via Web Server.

Diagnostics via PROFINET IO Diagnostics as part of PROFINET IO functions ➔ 10.5 Diagnostics via PROFINET IO via control software through the network.

10.2 LED indicators

Module diagnostics [MD]		
LED	Meaning	Remedy
Off	Logic supply PS not available.	– Check connection of logic supply PS.
Green light	Module diagnostics not active	–
Flashing green 0.5 Hz	Module diagnostics active "Information" degree of severity e.g. switching off load supply PL	–
Flashing red 0.5 Hz	Module diagnostics active "Warning" degree of severity e.g. parameterisation error	– Carry out appropriate remedial measures, e.g. check parameterisation.
Red light	Module diagnostics active "Error" degree of severity e.g. undervoltage in logic supply PS	– Carry out appropriate remedial measures, e.g. check logic supply PS.
Fast flashing red 2 Hz	Module ramp-up not yet completed. System communication not yet initialised.	–
Fast flashing green 2 Hz	Module identification (service function)	–

Tab. 10: Module diagnostics LED [MD]

System diagnostics [SD]		
LED	Meaning	Remedy
Off	Logic supply PS not available.	Check connection of logic supply PS.
 Green light	System diagnostics not active	–
 Flashing green 0.5 Hz	System diagnostics active "Information" degree of severity e.g. load supply PL to a module not available or firmware update in a module active.	–
 Flashing red 0.5 Hz	System diagnostics active "Warning" degree of severity e.g. parameterisation error in a module.	
 Red light	System diagnostics active "Error" degree of severity e.g. sensor supply short circuit in a module.	
 Fast flashing green 2 Hz	Module identification (service function)	–

Tab. 11: LED system diagnostics [SD]

Load supply [PL]		
LED	Meaning	Remedy
 Green light	Load supply PL available.	–
 Flashing green 0.5 Hz	Load supply PL not available.	Check load supply PL.
 Flashing red 0.5 Hz	Load supply PL outside the tolerance range.	Check load supply PL.

Tab. 12: Load supply LED [PL]

PROFINET network fault [NF]		
LED	Meaning	Remedy
Off	No error (if the system diagnostics LED [SD] is green).	–
Flashing red	Network configuration faulty.	Check network configuration.
	Network connection interrupted, short-circuited or interference.	Check network connection.
	Device name/device number not correct.	Check device name/device number.
	IO controller defective.	Fix IO controller.

Tab. 13: LED PROFINET network fault [NF]

PROFIenergy [PE]		
LED	Meaning	Remedy
Off	PROFIenergy not activated.	–
Flashing green	PROFIenergy activated.	–

Tab. 14: LED PROFIenergy [PE]

Connection status [XF1], [XF2]		
LED	Meaning	Remedy
Off	No network connection.	Check network connection.
Flashing green	Module positioning if both LEDs (XF1 and XF2) flash synchronously, e.g. for trouble-shooting or during configuration.	–
Green light	Network connection OK.	–

Tab. 15: LED connection status [XF1], [XF2]

10.3 Diagnostic messages

The table below contains the diagnostic messages of the interface.

ID hex (dec)	Message	Description	Remedy	Diagnostics status
02 I 01 I 0016 (33619990)	Undervoltage in logic supply (PS) 24 V DC	Undervoltage of the logic supply (PS) 24 V DC was detected.	– Check the power supply (logic)	Error
02 I 01 I 0017 (33619991)	Overvoltage in logic supply (PS) 24 V DC	Overvoltage of the logic supply (PS) 24 V DC was detected.	– Check the power supply (logic)	Error
02 I 01 I 0105 (33620229)	Undervoltage in load supply (PL) 24 V DC	Undervoltage in the load supply (PL) 24 V DC was detected.	– Check power supply (load) – Check for short circuit	Error

ID hex (dec)	Message	Description	Remedy	Diagnostics status
02 I 01 I 0106 (33620230)	Shutdown of load supply (PL) 24 V DC	A shutdown of the load voltage supply PL was detected. The cause can be a deliberate shutdown by emergency stop.	– Check whether emergency stop was activated – Check the load voltage supply	Information
02 I 01 I 013F (33620287)	Overvoltage in load supply (PL) 24 V DC	Overvoltage in load supply (PL) 24 V DC	– Check power supply	Error
06 I 00 I 0109 (100663561)	Startup parameter rejected by device	The startup parameter specified in the AP device description does not exist in the device or deviates from the specification.	– Check firmware version	Error
06 I 00 I 010A (100663562)	Start-up parameter deviation in length	The length of the start-up parameter in the device differs from the specified length in the AP device description.	– Check firmware version	Error
08 I 00 I 008C (134217868)	Failure of synchronisation signal fieldbus	Failure of synchronisation signal fieldbus	– Check wiring – Check controller configuration	Error
08 I 00 I 012E (134218030)	Device address invalid	Transferred device address is invalid.	– Check address configuration. Is the configuration set via software or hardware (DIL switch)? – Check the assigned address for the device. – Check multiple address assignment. – Check DIL switch setting.	Warning
08 I 00 I 0135 (134218037)	Wire break detected	A wire break was detected for the channel.	– Check wiring	Maintenance required
08 I 01 I 0124 (134283556)	Communication to AP master interrupted	The communication to the AP Master is interrupted.	– Restart AP Master. – Check communication AP connecting cable.	Error
08 I 01 I 0127 (134283559)	Communication to AP module interrupted	The AP system communication to a module is aborted.	– Restart AP system. – Check communication AP connecting cable.	Error
08 I 01 I 0132 (134283570)	Output process data watchdog of the bus interface expired	The process data watchdog for the output data in the bus interface has expired.	– Match cycle time and watchdog parameters. – Restart AP system. – Check cable.	Error
08 I 01 I 0133 (134283571)	Input process data watchdog of the bus interface expired	The process data watchdog for the input data in the bus interface has expired.	– Match cycle time and watchdog parameters. – Restart AP system. – Check cable.	Error
08 I 01 I 0134 (134283572)	AP Master toggle bit error	A module has not mirrored the toggle bit in the process data.	– Match cycle time and toggle timeout parameters. – Restart AP system. – Check cable.	Error
08 I 01 I 013A (134283578)	Multiple AP masters detected	Another AP master with higher priority was detected.	– Check the structure, only one AP master is permitted – Restart AP Master	Error
08 I 01 I 013B (134283579)	System startup failed	AP startup failed. AP system communication in emergency mode	– Check firmware versions and update if necessary – Restart AP system	Error
08 I 01 I 013C (134283580)	Topology discovery failed	AP topology discovery failed	– Check firmware versions and update if necessary – Restart AP system	Error
08 I 01 I 01AD (134283693)	Switch to operating mode operation failed	The AP device could not change the operating mode from Configuration to Operation.	– Restart system – Update firmware to the latest version – Contact Festo Service	Warning

ID hex (dec)	Message	Description	Remedy	Diagnostics status
08 l 01 l 01AE (134283694)	AP device detected invalid	The “device invalid” device status was detected for the AP device.	– Check AP device – Restart system	Error
08 l 01 l 01B1 (134283697)	AP system startup delayed	Unexpected error during system startup. Startup is repeated.	– Check communication AP connecting cable – Check AP devices – Check that current firmware versions are being used	Warning
08 l 01 l 01C4 (134283716)	AP module(s) detected	One or more new AP modules were detected in the system.	– None	Information
08 l 01 l 01FF (134283775)	Device not ready	A device delays the start-up for a disproportionately long time.	– Contact Festo Support	Error
08 l 01 l 0215 (134283797)	Communication failure to the downstream module	The device was forced into loopback by the master due to communication errors (AP Out Port disabled). This has interrupted communication with downstream modules.	– Check wiring	Maintenance required
08 l 01 l 0225 (134283813)	Illegal topology	The existing topology includes illegal connections.	– Check wiring	Maintenance required
08 l 01 l 0336 (134284086)	AP device port communication error	An AP device that is not communicating was detected in the system.	– Check firmware versions and update if necessary – Check wiring – Restart AP system	Error
08 l 01 l 880F (134318095)	Internal AP process data error	The AP process data controller returned an error.	– Restart device	Error
08 l 0A l 017F (134873471)	Process data configuration error	Reserved process data length for the IO-Link device too small	– Set the module variant to a larger process data length	Error
0A l 00 l 01A7 (167772583)	Remanent memory fault	Remanent memory fault	– Restarting device – If the problem persists, contact Festo Service	Error
0A l 01 l 00F9 (167837945)	RTE module watchdog monitoring error	RTE module watchdog monitoring error is triggered	– Restarting device – Update firmware – Service case	Error
0B l 00 l 010E (184549646)	General software error	An error has occurred that could not be assigned to any other specific diagnosis.	– Check that you are using the latest firmware version. – Please contact Festo Support	Error
0B l 00 l 0140 (184549696)	System start	The system starts.	– None	Information
0B l 04 l 00B7 (184811703)	Firmware invalid	Firmware invalid	– Repeat transmission of firmware package	Error
0B l 07 l 00CC (185008332)	Initialisation failed	Initialisation of the device failed.	– Check whether additional diagnostic messages are pending – Reset device to factory settings	Error
0B l 08 l 018F (185074063)	Unsupported Full Diagnostic Image version	The Diagnostic Full Image version is not supported.	– Check and synchronise firmware versions of master and devices.	Error
0B l 08 l 0190 (185074064)	Unsupported diagnostic version	The diagnostic version is not supported.	– Check and synchronise firmware versions of master and devices.	Error
0B l 09 l 0128 (185139496)	APDD invalid	The AP device description file is invalid or missing.	– Restart device. – Check communication lines (AP). – Check firmware version. – In the event of repeated errors contact Festo Service.	Error

ID hex (dec)	Message	Description	Remedy	Diagnostics status
0B | 09 | 0129 (185139497)	Start-up APDD invalid	The Startup AP device description file is invalid or missing.	– Restart device. – Check communication lines (AP). – Check firmware version. – In the event of repeated errors contact Festo Service.	Error
0B | 09 | 024F (185139791)	Device inconsistency detected	Different device data sources have inconsistencies for the same target data.	– Possible error in the device detected. Please contact Festo Service.	Maintenance required
0C | 00 | 013D (201326909)	Firmware update mode	AP system communication in firmware update mode	– Install firmware updates – Restart AP system	Maintenance required
0D | 01 | 01DD (218169821)	Diagnostic trace reset	The diagnostic trace has been reset and all diagnostics removed.	– None	Information

Tab. 16: Diagnostic messages

10.4 Diagnostics via Web Server

A webserver is available to display the diagnostics messages.
The web server can be accessed by entering the IP address in the address bar of a web browser.

10.5 Diagnostics via PROFINET IO

The remote I/O system CPX-AP-A supports diagnostics options via PROFINET IO in accordance with IEC 61158 such as module-related and channel-related status information and error detection in the online mode of the controller software and in the user program of the higher-order controller.
Diagnostics messages from the remote I/O system CPX-AP-A that cannot be displayed on the PROFINET standard diagnostics are shown as manufacturer-specific PROFINET channel diagnostics.
For PROFINET, only the lower 16 bits of the diagnostics ID (error number) are shown.
The display rule is as follows:
– Error number 1 … 32767:
  ChannelErrType = 2001 with ExtChannelErrType = error number
– Error number 32768 … 65535:
  ChannelErrType = 2002 with ExtChannelErrType = error number – 32768
The error number 0 is reserved.

Information on grouping and display of diagnostic messages
➔ Instruction manual for remote I/O system CPX-AP-A.

11 Technical data

11.1 Technical data, general

General technical data		
Certificates, declaration of conformity		➔ www.festo.com/sp
Mounting position		Any
Dimensions (width × length × height)	[mm]	50.1 × 107.3 × 57.5 (including interlinking module)
Product weight	[g]	108
Ambient temperature	[°C]	–20 ... +50
Storage temperature	[°C]	–20 ... +70
Humidity (non-condensing)	[%]	5 ... 95
Max. assigned address space (inputs/outputs)	[Byte]	1024/1024
Max. number of AP stations		80
Max. number of IO-Link masters in the remote I/O system		20
Module code (hex/dec)		0x3081/12417d
Module identification		CPX-AP-A-PN-M12
Protection against electric shock (protection against direct and indirect contact)		By the use of SELV/PELV circuits (Safe extra-low voltage/Protected extra-low voltage)
Electromagnetic compatibility		See declaration of conformity ➔ www.festo.com

Tab. 17: General technical data

11.2 Technical data, electrical

Power supply		
Logic supply PS	[V DC]	24 ± 25 %
Intrinsic current consumption at nominal operating voltage 24 V from PS	[mA]	Typically 80
Reverse polarity protection 24 V PS against 0 V PS		Yes
Diagnostics message, overvoltage in logic supply PS	[V DC]	≥ 31
Mains buffering time, logic supply PS	[ms]	10
Load supply PL	[V DC]	24 ± 25 %
Intrinsic current consumption at 24V at nominal voltage 24 V from PL	[mA]	Typically 4
Reverse polarity protection 24 V PL against 0 V PL		Yes
Diagnostics message, undervoltage in load supply PL	[V DC]	≤ 17
Diagnostics message, overvoltage in load supply PL	[V DC]	≥ 31

Tab. 18: Power supply

Network-specific data		
Protocol		PROFINET[1)] With functionalities of Class C (CC-C) – LLDP – DCP – CiR – MRP, MRPD – FSU – IRT – S2 system redundancy – Shared device
Specification (Standards and norms with reference to PROFINET)		IEC 61158, IEC 61784, IEC 61918
Transmission rate	[Mbps]	100
Wavelength	[nm]	POF
Maximum cable length per segment	[m]	50
Factory settings		
IP address		0.0.0.0
Subnet mask		0.0.0.0
Cable specification		
Cable type		POF
Transmission class		Category Cat 5 or higher
Cable diameter	[mm]	6 ... 8
Wire diameter	[mm]	1

1) based on the Ethernet protocol IEEE 802.3

Tab. 19: Network-specific data

Festo SE & Co. KG
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