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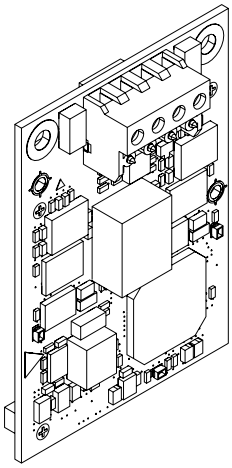

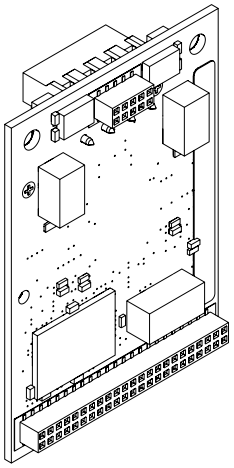

FN2001-A1

Network module (SAFEDLINK)

Mounting

Installation

A6V10315042_f_en_--
2015-04-16

Siemens Industry, Inc.
Building Technologies Division

Legal notice

Technical specifications and availability subject to change without notice.

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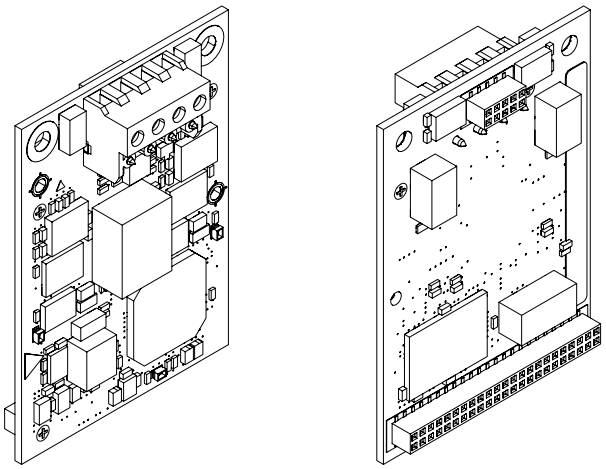


1.1 Description

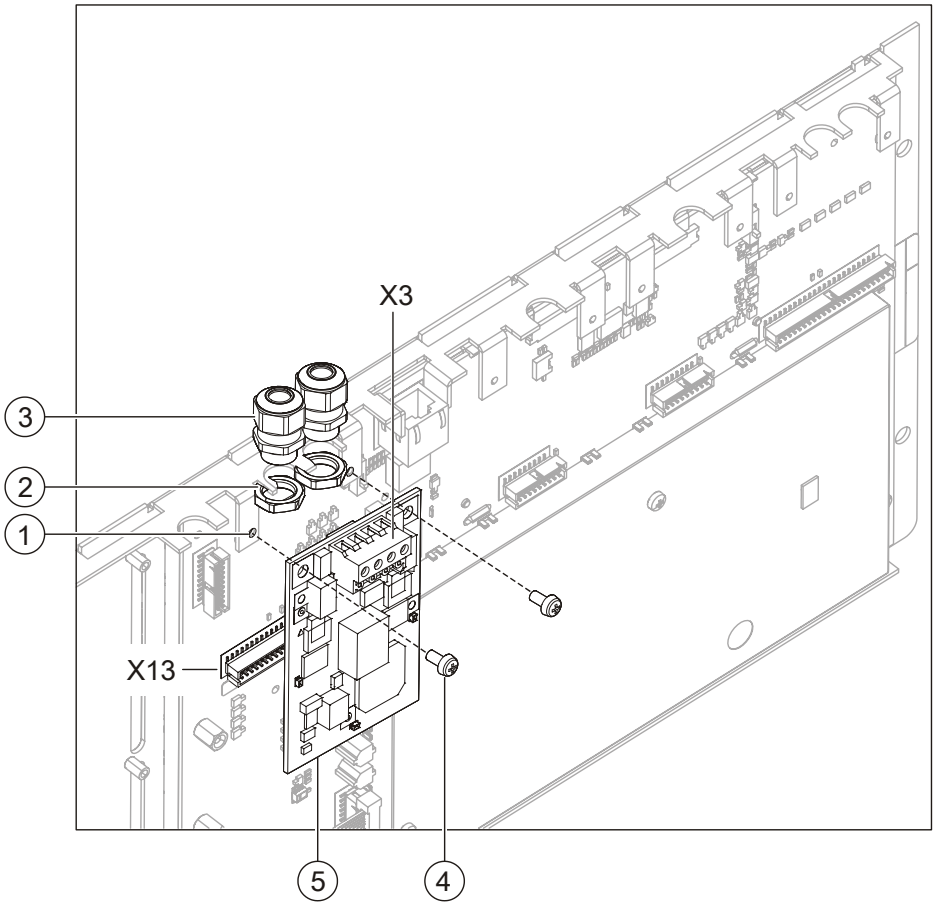
The network module FN2001 (SAFEDLINK) is used to network several via the system bus FCnet/C-WEB. FN2001 may only be used for networking in a fire detection system.

The network module is plugged onto the PMI & mainboard and has the following features:

- Connections for a system bus input and a system bus output
- Integrated degraded mode function with signal transfer in the event of line trouble
- Electrical isolation between the system bus and the panel
- Ground fault supervision
- Signal transfer in the event of line trouble caused by redundant networking with one network module per panel

1.2 Installation

The network module (SAFEDLINK) FN2001 must be installed in the left slot (X13) (main module slot).



Installing the network module (SAFEDLINK) FN2001

1	Fastening tabs on operating unit
2	Nut for screwed cable gland (2 per module) [1]
3	Cable gland (2 per module) [1]
4	2x fixing screw
5	Network module (SAFEDLINK) on X13 (master module)
X3	FCnet/SAFEDLINK or C-WEB/SAFEDLINK connection terminal
X13	Connection terminal on PMI & mainboard

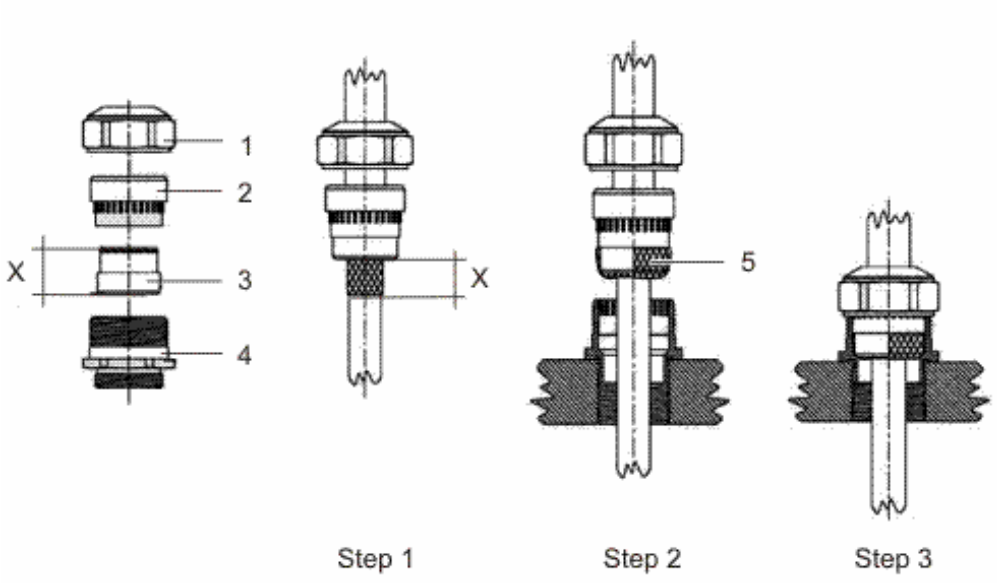
[1] When using shielded cables, the cable glands are needed to secure the shielding.

Make sure you install the network module (SAFEDLINK) in the correct position (plug X13) during installation.

1. When shielded cables are used, mount the two cable glands (3) with the nuts (2) on the flange between the fastening tabs (1).
2. Plug the network module (SAFEDLINK) (5) into the connector X13 as shown.
3. Fasten the network module to the fastening tabs (1) using the two fixing screws (4).
4. Check that the network module is secured correctly in order to prevent open circuits.
5. Wire up the system bus SAFEDLINK according to the pin assignment.

1.3 Installing the shielding

If using shielded cables, the cable gland must be fitted.

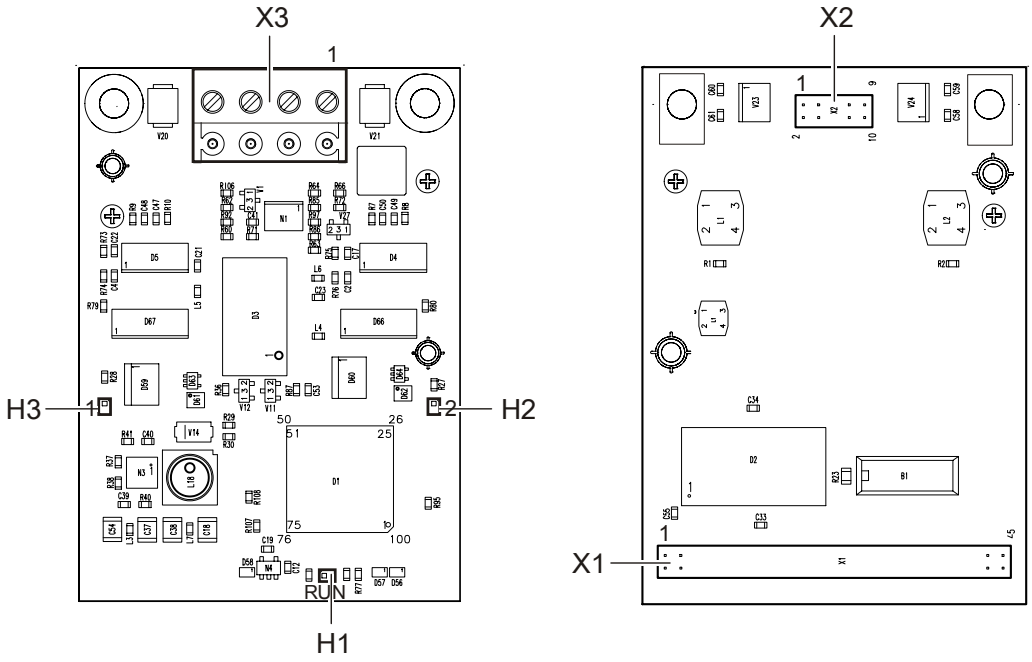


Installing the shielding

1	Nut
2	Sealing element
3	Contact sleeve
4	Bottom part of cable gland
5	Braid
X	Length of contact sleeve

1. Pull nut (1), sealing element (2) and contact sleeve (3) over cable.
2. Trim outer cable surround to the desired length.
3. Trim braid or shield film to the contact sleeve (X) length.
4. Slide nut (1), sealing element (2) and contact sleeve (3) to end of surround.
5. Place braid or shield film over contact sleeve (3). Cut off protruding material.
6. Guide the prepared cable into fitted bottom part of cable gland (4) until sealing element (2) and contact sleeve (3) are flush in bottom part.
7. Screw nut (1) to bottom part such that the cable is firmly pressed in.

1.4 Views



Network module (SAFEDLINK) FN2001

X1	Connector to the PMI & mainboard (connector on rear panel)
X2	Connector to the FCnet/C-WEB circuits (connector on rear); not used with FS20/FS920
X3	Connector to FCnet/C-WEB circuits; used with FS20/FS920
H1	LED green: Status display for network module
H2	LED yellow: Status display for circuit 2
H3	LED yellow: Status display for circuit 1

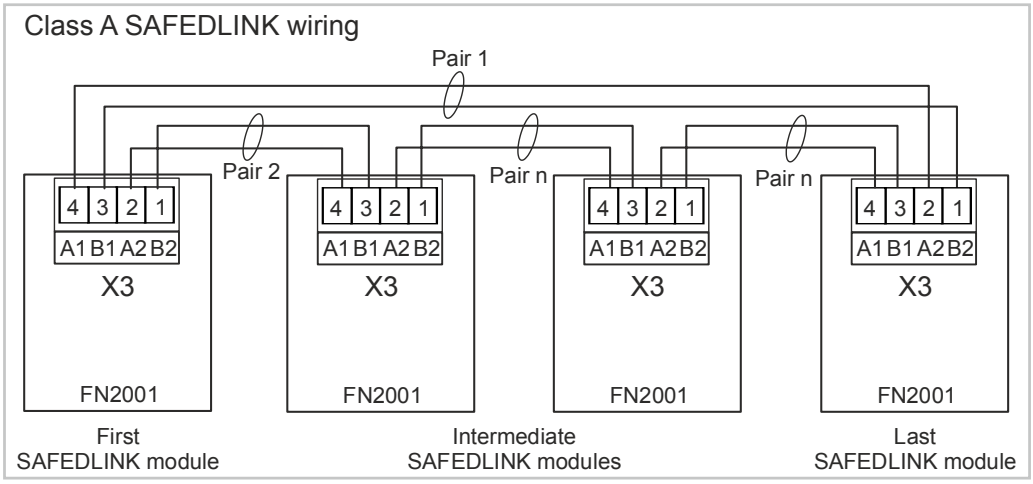
1.5 Pin assignments

1.5.1 Connector X3

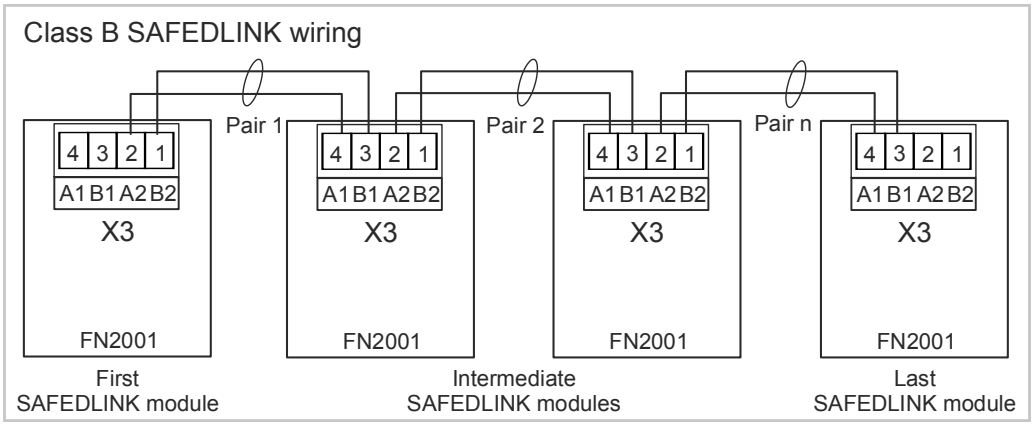
Pin	Designation	Description
4	A1	Circuit 1 (+)
3	B1	Circuit 1 (–)
2	A2	Circuit 2 (+)
1	B2	Circuit 2 (–)

Admissible cable cross-section: 12…22 AWG

Wiring for class A network



Wiring for class B network



- Ground fault detected at <1 kΩ
- Power limited acc. to NFPA 70 / NEC 760
- No EOLR required
- Connect shields at one end only
- Max. length of SAFEDLINK wiring between two modules:
  - 3300 ft / 1005 m or 10 dB loss at 100 kHz
  - 3300 ft / 1005 m or 30 dB loss at 1 MHz
- All wiring is supervised for open circuits and short-circuits.

You will find detailed instructions on configuring the class A and class B SAFEDLINK network in the following documents:

– A6V10315023 for Desigo

– A6V10333423 for Cerberus PRO

1.6 Indicators

LED	Color	Function	Condition	Meaning
RUN (H1)	Green	Condition of the network module (SAFEDLINK)	Off	Network module (SAFEDLINK) is defective
			On	Normal condition (H2 and H3 are off)
			Flashes	Normal condition for degraded mode module (H2 and H3 are off)
2 (H2)	Yellow	Status of circuit 2 (A2, B2)	Off	Normal condition (communication on circuit 2 is OK)
			On	Error on circuit 2 (no communication on circuit 2)
1 (H3)	Yellow	Status of circuit 1 (A1, B1)	Off	Normal condition (communication on circuit 1 is OK)
			On	Error on circuit 1 (no communication on circuit 1)

1.7 Technical data

Supply	Voltage	DC 24 V
	Current	Standby 35 mA Alarm 35 mA
System bus SAFEDLINK	Voltage	DC 5 V
	Impedance	120 Ω
	Cable type: Shielded	
	Line-to-line capacitance	150 nF @ loop resistance 20 Ω 40 nF @ loop resistance 180 Ω
	Line-to-shield capacitance	150 nF @ loop resistance 20 Ω 40 nF @ loop resistance 180 Ω
	Cable type: Unshielded	
	Line-to-line capacitance	220 nF @ loop resistance 20 Ω 60 nF @ loop resistance 180 Ω
	Protocol	SAFEDNET (UDP/IP)
	Data rate in operation mode:	
	'Standard':	312 kbit/s
	'Low':	96 kbit/s
	Distance between two network modules	Max. 3300 ft / 1005 m
	Electrical isolation between FCnet/C-WEB and panel	1 kV
	Supervised for:	• Short circuit • Open circuit • Ground fault • Communication error
Connections	Wire gauge	12…22 AWG
	Operating unit	Plug-type connection

2 FCC Statement

⚠ WARNING

Installation and usage of equipment is not in accordance with instructions manual

Radiation of radio frequency energy

Interference to radio communications

- Install and use equipment in accordance with instructions manual.
- Read the following information.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications.

It has been tested and found to comply with the limits for a Class A computing device pursuant to Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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