SIEMENS

Sinteso™ Cerberus™ PRO

Line adapter (Ex)

FDCL221-Ex

Addressed (FDnet-Ex/C-NET-Ex) For operating FDnet-Ex/C-NET-Ex peripheral devices in areas at risk of explosion

- Electrical isolation between non-intrinsically safe and intrinsically safe circuits
- Use on FDnet/C-NET detector lines, on stubs, or loops
- Status indicator/operating indicator with two LEDs
- MC link connection
- Installation in fire control panels or in an installation housing FDCH222

Properties

Features

- Protected electronics
- Integrated operating indicator
- Integrated LED for signaling the isolation of the area at risk of explosion

Eco-friendly

- Environmentally friendly processing
- Reusable materials
- Electronic parts and synthetic materials can be separated

Functions

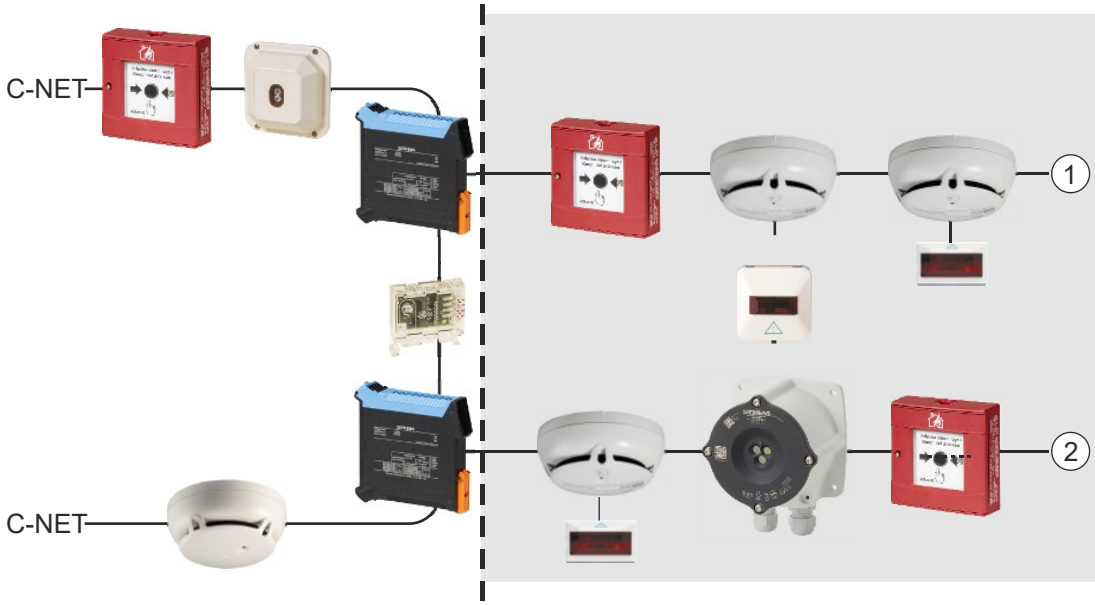
- The line adapter (Ex) is used for electrical isolation purposes and for limiting the electrical energy between non-intrinsically safe and intrinsically safe circuits.
- It is not necessary for the housing to be connected to local ground
- The power required for the line adapter (Ex) to supply itself is taken from the FDnet/C-NET. It is not necessary to connect an external power supply
- Operation possible on an FDnet/C-NET detector line or a stub. There is therefore no line separation function in the area not at risk.
- The line adapter (Ex) has two connections for the detector line (FDnet/C-NET) in the area not at risk and one connection in the area at risk of explosion (FDnet-Ex/C-NET-Ex).
- Two LEDs for displaying the operating status and faults, and for localizing the device

Observe national guidelines and regulations.

- Fields of application:
  - The line adapter (Ex) must not be mounted in the area at risk of explosion.
  - The line adapter (Ex) is used where the operation of Ex peripheral devices is required. It separates the area at risk of explosion from the area not at risk
  - The line adapter (Ex) only makes it possible to operate FDnet-Ex and C-NET-Ex devices There are other safety barriers (SB2, SB3) available for collective systems
  - Changing from existing collective systems to addressable Sinteso and Cerberus PRO fire detection systems

Application in the C-NET

Area not at risk	Area at risk of explosion

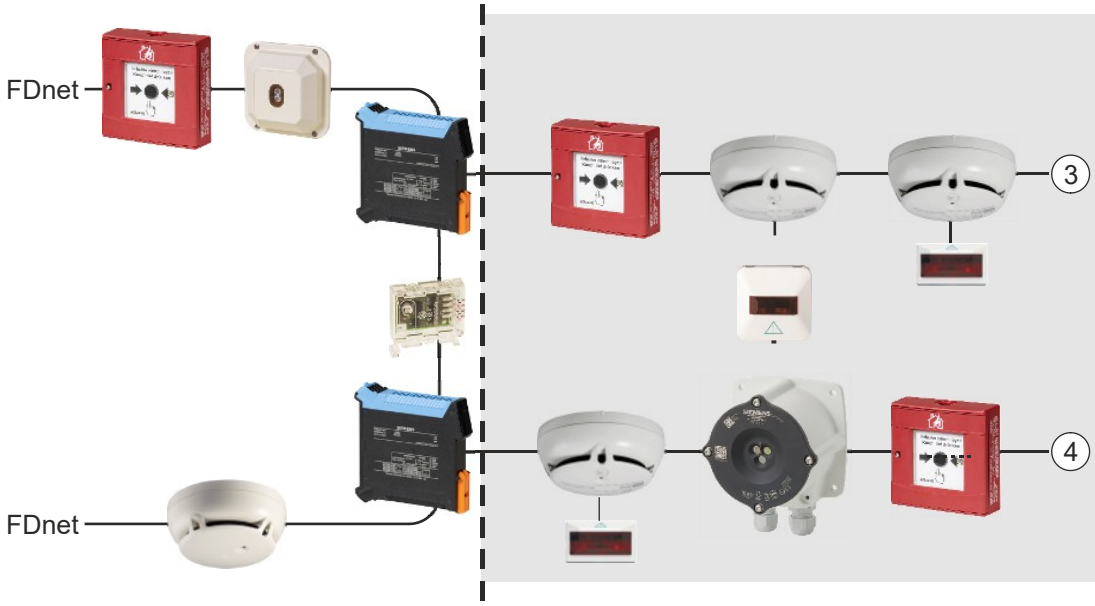


1 Ex stub line 1 (C-NET-Ex)

2 Ex stub line 2 (C-NET-Ex)

Application in the FDnet

Area not at risk	Area at risk of explosion



3 Ex stub line 1 (FDnet-Ex)

4 Ex stub line 2 (FDnet-Ex)

Type Overview

Type	Designation	Order number	Weight [kg]
FDCL221-Ex	Line adapter (Ex)	S54329-F4-A1	0.240

Accessories for the line adapter (Ex) FDCL221-Ex

Type	Designation	Order number	Weight [kg]
TS35 (L = 122 mm) TS35 (L = 288 mm)	U-rail TS35/7.5/122 U-rail TS35/7.5/288	BPZ:5644780001 BPZ:5644230001	0.041 0.098
FDCH222	Installation housing	S54329-F10-A	1.673

Product documentation

Document ID	Name
008164	Equipment overview Sinteso™ Detector system FD20
008331	List of compatibility (for 'Sinteso™' product line)
A6V10229261	List of compatibility (for 'Cerberus™ PRO' product line)
A6V10333771	Technical Manual Line adapter (Ex) FDCL221-Ex
A6V10324618	Planning, Mounting/Installation, Commissioning, Maintenance of fire detection installations with addressed detector lines in potentially explosive atmospheres

Related documents such as the environmental declarations, declarations of conformity, etc., can be downloaded from the following Internet address:

www.siemens.com/bt/download

Notes

Mounting

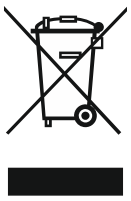
NOTICE	
!	Ex installations must be carried out by qualified technical personnel. Observe acceptance and documentation specifications.

- The line adapter (Ex) can be accommodated in an intermediate distributor in the riser zone on different floors, or at the former location of the collective control panel. Ideally, it is mounted as close as possible to the area at risk because the cable lengths permitted in the area at risk, which are calculated individually in each case, are limited.
- Installation materials, protective spacing, and necessary markings in potentially explosive areas must correspond to the national directives.
- Observe specifications for insulation between Ex and non-Ex detector lines.

Mounting in fire control panels or in an installation housing

- The line adapter (Ex) can be mounted in a fire control panel FC20xx or FC72x or in an installation housing FDCH222 (accessories). The line adapter (Ex) is installed on a U-rail in both cases.

Disposal



The device is considered an electronic device for disposal in accordance with European Directive and may not be disposed of as domestic waste.

- Use only designated channels for disposing the devices.
- Comply with all local and currently applicable laws and regulations.

Technical data

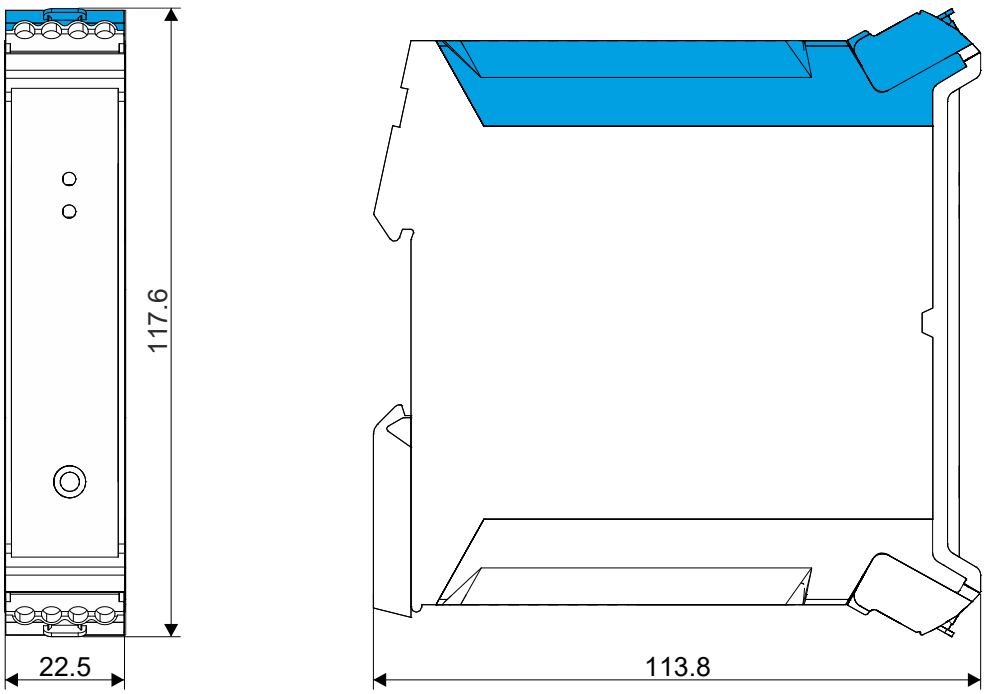
	FDCL221-Ex
Operating voltage ● Nominal voltage (U_n) ● Maximum voltage (U_m)	 DC 12…33 V AC 253 V
Operating current (quiescent) / (max. load)	1.5 µA / 2.5 mA
Operating temperature	-25…+60 °C
Storage temperature	-30…+75°C
Air humidity	≤95 % rel.
Communication protocol	FDnet/C-NET // FDnet-Ex/C-NET-Ex
Colors: ● Line adapter (Ex) ● Housing FDCH222 ● Housing cover	 Black / light blue Gray Transparent
Protection category (IEC/EN 60529) ● Without housing ● With installation housing FDCH222	 IP20 IP66
Ex classification IECEx Directive 2014/34/EU: (ATEX directive)	 [Ex ia Ga] IIC, Ta = -25…+60 °C [Ex ia Da] IIIC, Ta = -25…+60 °C II (1) G [Ex ia Ga] IIC, Ta = -25...+60 °C II (1) D [Ex ia Da] IIIC, Ta = -25...+60 °C
Standards	EN 54-18
Standards for explosion-hazard areas	EN 60079-0 EN 60079-11
Ex approvals ● EU-type examination certificate ● IECEx	 BVS 12 ATEX E 094 IECEx BVS 12.0079
Approvals ● VdS ● DNV GL (marine)	 G213108 MEDB00003UU
System compatibility ● FDnet ● C-NET	 FS20, AlgoRex, SIGMASYS FS720

Ex-related connection data, intrinsically safe	U_0	28 V
	I_0	92 mA
	P_0	644 mW
	L_0	2.9 mH
	C_0	82 nF
	U_m	253 V

Symbol	Meaning
C_0	Maximum external capacitance
I_0	Maximum output current
L_0	Maximum external inductance
P_0	Maximum output power
U_m	Maximum root mean square value of AC voltage. Maximum permissible voltage of an associated item of electrical equipment without canceling the energy limitation.
U_0	Maximum output voltage

Dimensional drawings

FDCL221-Ex line adapter (Ex)



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