

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

### 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



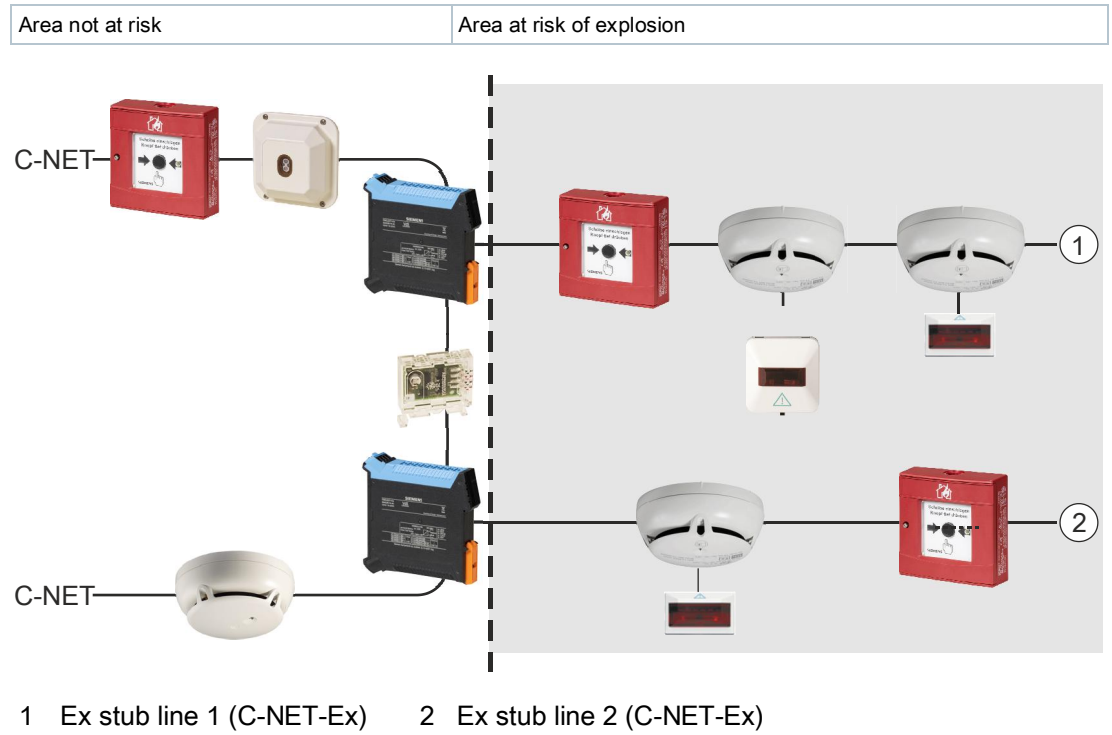
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Observe national guidelines and regulations.

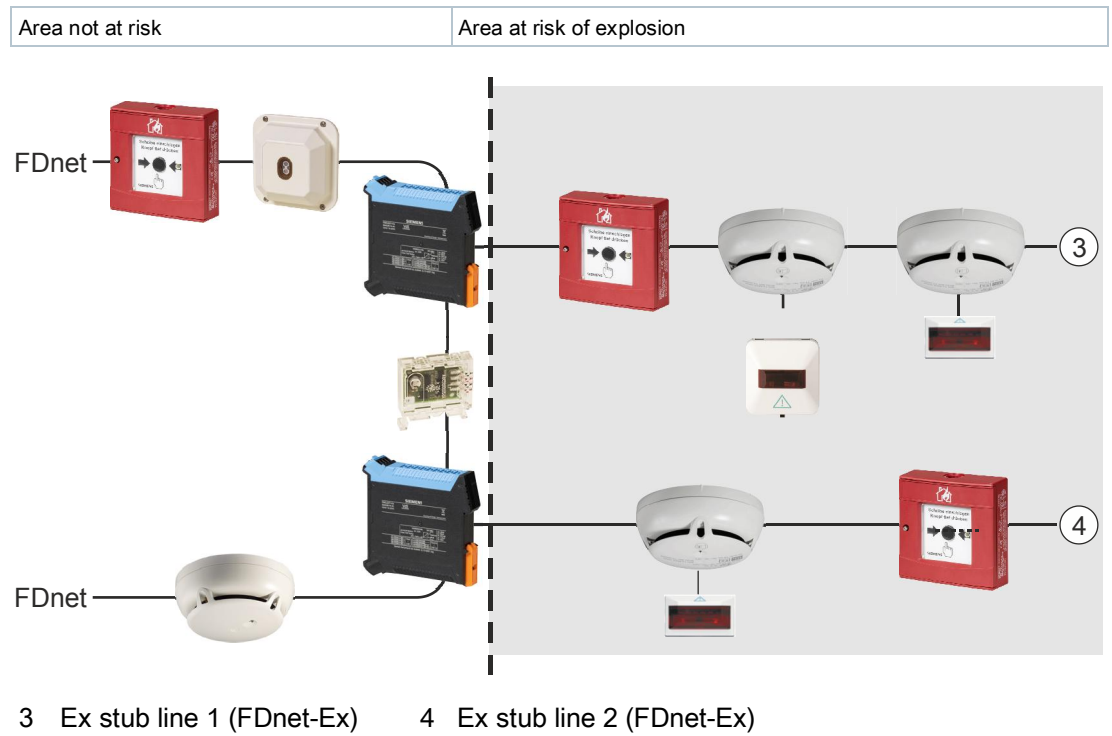
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- Fields of application:
  - The line adapter (Ex) must not be mounted in the area at risk of explosion.
  - The line adapter (Ex) is used where the operation of Ex peripheral devices is required. It separates the area at risk of explosion from the 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



## Application in the FDnet



## 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)	U-rail TS35/7.5/122	BPZ:5644780001	0.041
TS35 (L = 288 mm)	U-rail TS35/7.5/288	BPZ:5644230001	0.098
FDCH222	Installation housing	S54329-F10-A	1.673

## Product documentation

Document ID	Name
008164	Equipment overview Sinteso™ Detector system FD20
A6V10225323	Equipment overview Cerberus™ PRO Detector system FD720
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 environmental declarations, CE declarations, etc., can be downloaded at the following Internet address:

<http://siemens.com/bt/download>

## Mounting

<b>!</b>	<b>NOTICE</b>
	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 the European Guidelines and may not be disposed of as domestic garbage.


- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

## Technical data

	FDCL221-Ex
Operating voltage <ul style="list-style-type: none"> <li>Nominal voltage (U<sub>n</sub>)</li> <li>Maximum voltage (U<sub>m</sub>)</li> </ul>	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: <ul style="list-style-type: none"> <li>Line adapter (Ex)</li> <li>Housing FDCH222</li> <li>Housing cover</li> </ul>	Black / light blue Gray Transparent
Protection category (IEC/EN 60529) <ul style="list-style-type: none"> <li>Without housing</li> <li>With installation housing FDCH222</li> </ul>	IP20 IP66
Ex classification IECEX	[Ex ia Ga] IIC, Ta = -25...+60 °C [Ex ia Da] IIIC, Ta = -25...+60 °C
Directive 94/9/EC: (ATEX directive)	II (1) G [Ex ia Ga] IIC, Ta = -25...+60 °C II (1) D [Ex ia Da] IIIC, Ta = -25...+60 °C
Standards for areas at risk of explosion	EN 60079-0:2012 EN 60079-11:2012 EN 60079-26:2007 EN 54-18
Ex approvals <ul style="list-style-type: none"> <li>EC-type examination certificate</li> <li>IECEX</li> </ul>	BVS 12 ATEX E 094 BVS 12.0079
EN 54 approvals <ul style="list-style-type: none"> <li>VdS</li> <li>DNV GL (marine)</li> </ul>	G213108 MEDB00003UU
System compatibility <ul style="list-style-type: none"> <li>FDnet</li> <li>C-NET</li> </ul>	FS20, AlgoRex, SIGMASYS FS720

<b>Ex-related connection data, intrinsically safe</b>	$U_0$	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

14  0786 0102	<b>FDCL221-Ex</b>	Siemens Schweiz AG; Theilerstrasse 1a CH-6300 Zug Technical data: see doc. <b>A6V10333771</b>
	FDCL221-Ex - Input/output device for use in fire detection and fire alarm systems installed in buildings.	
	305/2011/EU (CPR): EN 54-18 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581 ; 2014/34/EU (ATEX): EN 60079-0 / EN 60079-11	
	The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or <a href="https://siemens.com/bt/download">https://siemens.com/bt/download</a>	
	DoP No.: 0786-CPR-21322; DoC No.: CED-FDCL221-Ex	

FDCL221-Ex line adapter (Ex)

