

# Approved FDP/FX loop device combination in Ex i areas

Instruction Sheet  
R10269GB1

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# 1 Approved FDP/FX loop device combination in Ex i areas

This document describes loop devices and intrinsically safe devices that are compatible with each other and with FDP221, FDP252, and FDP 292; FXL, FX, FXM and FXS and FX101S fire detection panels.

<b>⚠ WARNING</b>
<p><b>COMPROMISED FUNCTIONALITY</b>          Comply with the requirements stated in this document.  <b>Failure to follow these instructions can result in death, serious injury or equipment damage.</b></p>

## 1.1 Devices covered in this document

Part number	Type marking	Description
FFS06717031	EM210E-CZR	Addressable SLC, Conventional zone module with resistive EOL
FFS06717032	EM210EA-CZR	Addressable SLC, Conventional zone module with resistive EOL. (New version that will replace EM210E-CZR)
FFS00438210	EXP-2000/P+F	Barrier unit for hazardous areas, Including barrier Pepperl+Fuchs KFDO-CS-Ex1.51P
FFS06725720	IS ORB-OP-52027-APO	Conventional, intrinsically safe optical smoke detector
FFS06725721	IS ORB-OH-53027-APO	Conventional, intrinsically safe multisensor smoke detector
FFS06725741	ORB-HT-51151-APO	Conventional, intrinsically safe BS heat detector
FFS06725750	ORB-HT-51145-APO	Conventional, intrinsically safe A1R heat detector
FFS06725751	ORB-HT-51157-APO	Conventional, intrinsically safe A1S heat detector
FFS06723707	ECC201N9	Conventional, intrinsically safe manual call point. <b>Note!</b> Alarm resistor of <b>470 ohms</b> must be connected in series with alarm switch. The resistor is not included.
FFS06725722	ORB-MB-50018-APO	Conventional, intrinsically safe base for conventional detectors

## 1.2 Requirements for installations

- 1) External power supply must be used to supply power to the conventional zone in Conventional zone module EM210E/EA-CZR.
- 2) The minimum external supply voltage for the conventional zone module EM210E/EA-CZR is 21 V measured at the module terminals with maximum load of 60 mA.
- 3) The maximum line resistance in the conventional zone before the barrier is 10 ohms. After the barrier the maximum line resistance is 10 ohms.
- 4) 20 devices may be connected after barrier EXP-2000/P+F.
- 5) In the manual call point an alarm resistor of **470 ohm** must be connected in series with the alarm switch.

**Important:** Do not install any devices before barrier in the conventional zone.

**Important:** Ground unused wires and any cable shields in hazardous area according to local Ex i regulations.

**Note:** Short circuit after barrier in the conventional zone is always detected as a fire alarm.

## 1.3 Diagram and connections

