

USB 501-7 Ex-i

Base for Ex areas
surface mounting

Along with the MMD 130 Ex-i optical- and heat detectors, the USB 501-7 Ex-i is suitable for use in Ex zones 1 and 2. It has no loop contact.



Fig. 1 USB 501-7 Ex-i base

Description

The fire detector line consists of the Z787 / Z787F safety barrier or the GTW01/02 direct current isolating transformer as interface between the explosion hazardous area and the safe area, the fire detector bases, plus the actual fire detectors and the associated cables.

The design of the base meets the requirements for installations in Ex zones 1 and 2 as well as for installations in wet rooms. It is equipped with two blue cable entries.

The MMD 130 Ex-i is fitted into the USB 501-7 Ex-i base.

Dimensioned drawing

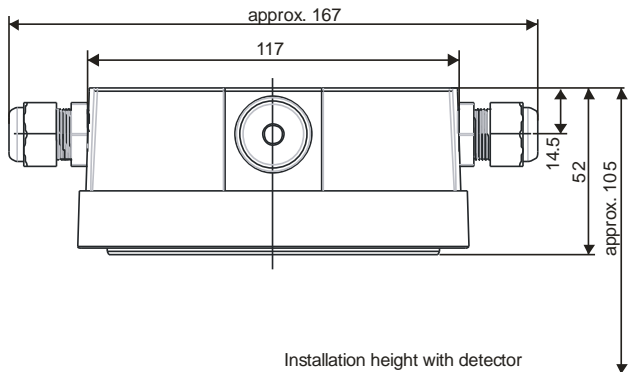


Fig. 2 Dimensioned drawing USB 501-7 Ex-i

Planning



The country-specific guidelines for planning and installing automatic fire detector systems in areas subject to explosion hazards apply when planning. The following project specifications are subject to country-specific specifications.

Terminal assignment

Terminal	Signal
1	GND (in and out)
2	Voltage supply (in)
3	Voltage supply (out)
4	GND (in and out)
5	Support point (potential-free)
6	Support point (potential-free)

Mounting / installation



The MMD 130 Ex-i is permitted to be operated only with the USB 501-7 Ex-i and via an Z787 / Z787F or GTW 01/02.



The safety barrier and the GTW must be installed in the safe zone.

The fire detector base is intended to be surface mounted. The Ex-i detector is secured in the base with a bayonet catch. The sealing ring (O-ring) must be used when inserting the detector.

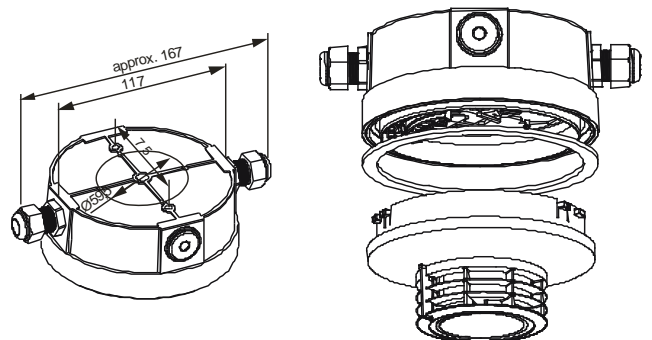


Fig. 3 Mounting the USB 501-7 Ex-i base

In the last base of a fire detection zone, terminals 3 and 4 are terminated with termination resistance. Please see MMD 130 Ex-i data sheet T811045 for the correct resistance value. The supply line must be on terminals 1 and 2.

Branch sockets of an Ex-i installation must meet the following requirements:

- Minimum protection type IP 42
- Creepage distance of min. 3 mm between terminals



For the visual identification of the Ex-i wiring system the distributor sockets must be equipped with cable screw unions which are blue.

Data Sheet

Article numbers / spare parts

Short designation	Art. number CH	Art. number
MMD 130 Ex-i fire detector	022.246794	30-5000005-01-01
USB 501-7 Ex-i detector base	123.246786	5000547.0007

Technical data

Mounting type	Surface mounting
Area of application	Dry and wet rooms
Protection type compliant with DIN EN 60529	IP 44
Ambient temperature range (continuous)	-25 ... +70 °C
Terminals	Cable screw terminals max. 2.5 mm ²
Dimensions (D x H)	117 x 52.5 mm
Weight	approx. 165 g
Ex zones	1 and 2
Ex approval (cable screw union)	PTB 05 ATEX 1068 X
VdS approval	G 211094