Safety Instructions

Deltapilot S
FMB70

Zone 0/Zone 1 Ex ia IIC T6...T4

IECEx KEM06.0011

XB010P-B

Safety instructions for electrical apparatus for explosion-hazardous areas according to IEC standards

XB010P-B/00/en/12.07
71067933

Endress+Hauser

People for Process Automation

Deltapilot S
FMB70

HART, PROFIBUS PA, FOUNDATION Fieldbus

Associated Documentation

This document is an integral part of the following Operating Instructions:
HART: BA332P/00, BA274P/00
PROFIBUS PA: BA356P/00, BA296P/00
FOUNDATION Fieldbus: BA372P/00

The Operating Instructions which are supplied and correspond to the device type apply.

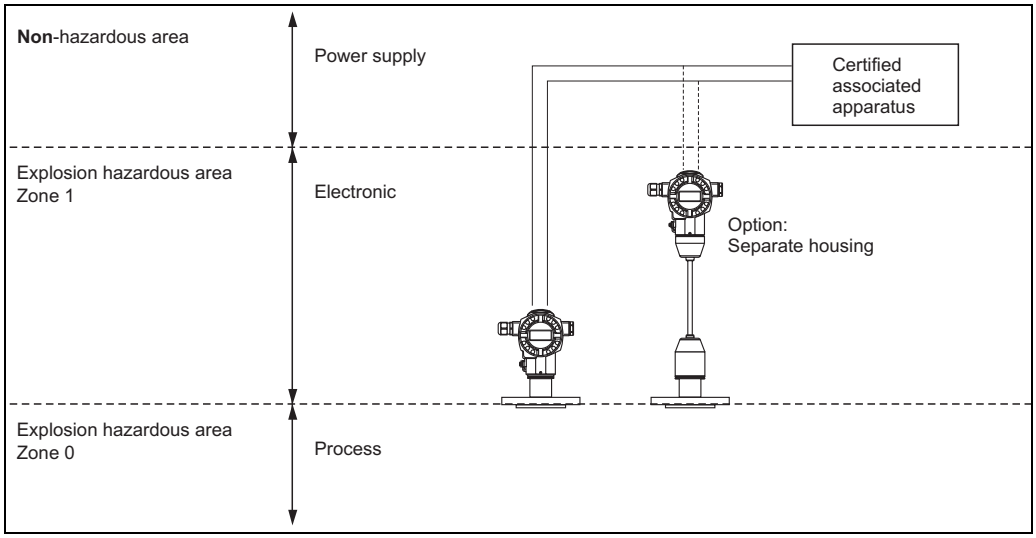
Supplementary Documentation

Explosion-protection brochure:
SD215F/00

Designation

Explanation of the labelling and type of protection can be found in the explosion protection brochure.

Designation of explosion protection	**Zone 0/Zone 1**	**Ex**	**ia**	**IIC**	**T6...T4**



Electronic insert: 4...20 mA, HART

Type of protection	Electrical data	Temperature class	Ambient temperature (Housing)	Process temperature
Zone 0/Zone 1 Ex ia IIC T6...T4	Ui ≤ 30 V DC li ≤ 300 mA Pi ≤ 1 W Ci ≤ 11.8 nF Li ≤ 225 µH	T6	–40°C ≤ Ta ≤ +40°C	≤ 80°C
		T4	–40°C ≤ Ta ≤ +70°C	≤ 100°C

The process temperatures refer to the temperature at the separation membrane of FMB70 (do not exceed the max. ambient temperature at the housing).

Electronic insert: PROFIBUS PA, FOUNDATION Fieldbus (FISCO field device)

Type of protection	Electrical data	Temperature class	Ambient temperature (Housing)	Process temperature
Zone 0/Zone 1 Ex ia IIC T6...T4	Ui ≤ 17.5 V DC li ≤ 500 mA Pi ≤ 5.5 W or Ui ≤ 24 V DC li ≤ 250 mA Pi ≤ 1.2 W Ci ≤ 5 nF Li ≤ 10 µH (suitable for connection to a fieldbus system according to the FISCO-model)	T6	–40°C ≤ Ta ≤ +40°C	≤ 80°C
		T4	–40°C ≤ Ta ≤ +70°C	≤ 100°C

The process temperatures refer to the temperature at the separation membrane of FMB70 (do not exceed the max. ambient temperature at the housing).

Safety instructions: Installation

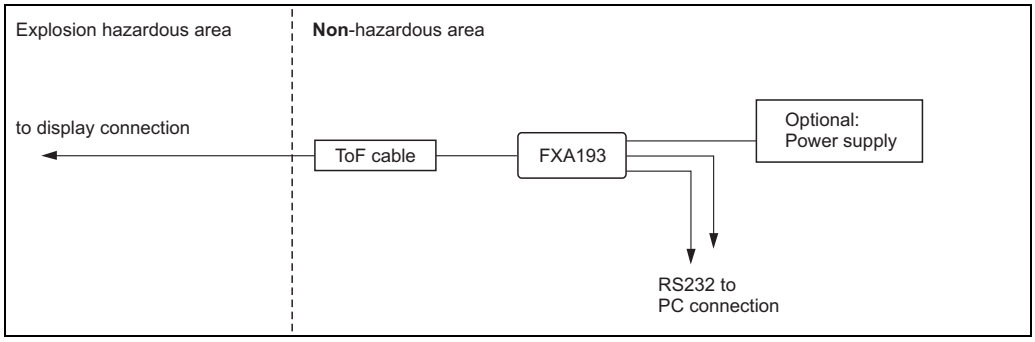
- Comply with the installation and safety instructions in the Operating Instructions.
- Install the device according to the manufacturer's instructions and any other valid standards and regulations (e.g. IEC 60079-14).
- Only install the devices in media for which the wetted materials have sufficient durability.
- Avoid electrostatic charging of the plastic surfaces, for plastic process connections or plastic coatings.
- The type of protection changes as follows when the devices are connected to certified intrinsically safe circuits of Category ib: Ex ib IIC T6 or Ex ib IIB T4.
  When connecting an intrinsically safe ib circuit, do not operate the sensor at Zone 0.
- In hazardous areas, intrinsically safe equipment may only be operated on certified intrinsically safe circuits. The intrinsic safety can be jeopardised if, prior to the installation in the Ex-area, the device is operated with circuits which did not guarantee the Ui, Ii and Pi values indicated in the table above.
- The intrinsically safe input power circuit of the device is isolated from ground potential and has a dielectric strength of at least 500 V_{rms} with respect to it. For devices with integrated overvoltage protection (optional), the dielectric strength is min. 290 V_{rms} to earth.
- After aligning (rotating) the housing, retighten the fixing screw

Safety instructions: Zone 0

- Only operate devices in potentially explosive vapour/air mixtures under atmospheric conditions:
  $-20°C \leq T \leq +60°C$
  $0.8 \text{ bar} \leq p \leq 1.1 \text{ bar}$
- If no potentially explosive mixtures are present, or if additional protective measures have been taken, e.g. according to IEC 60079-14 or EN 1127-1, the transmitters may be operated under other than atmospheric conditions in accordance with the manufacturer's specifications.
- Associated apparatus with galvanic isolation between the intrinsically safe and non-intrinsically safe circuits are preferred.
- Overvoltage protection is not required depending on the design of this device.

Option: Endress+Hauser service interface FXA193 with ToF cable

Connection of service interface FXA193 with ToF cable



- Do not use the FXA193 with ToF cable in hazardous locations.
- Connecting the FXA193 without ToF cable may impair intrinsic safety.
- Use only Endress+Hauser prefabricated cables for connection.

www.endress.com/worldwide

Endress+Hauser

People for Process Automation

XB010P-B/00/en/12.07
71067933
CCS/FM+SGML 6.0

71067933