



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Safety Instructions

Solphant T FTM20, FTM21

Ex ta/tc IIIC T170 °C Da/Dc

IECE_x KEM07.0043

XA00424F-B

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

Soliphant T

FTM20, FTM21

english

Associated Documentation

This document is an integral part of the following Operating Instructions:
KA00227F/00

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

Supplementary Documentation

Explosion-protection brochure:
CP021Z/00

Designation

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

**Designation according to IECEx
Equipment protection level (EPL)**

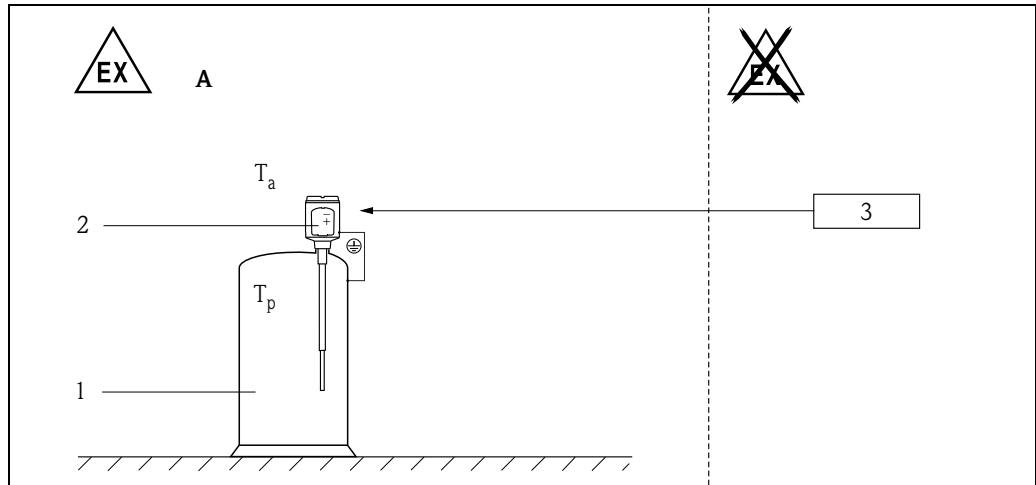
Da/Dc

Designation of type of protection

Ex ta/tc IIIC T170 °C Da/Dc

Applied standards

IEC 60079-0 :2011
IEC 60079-31 :2008



FEM2x_01

1

A Zone 22

1 Tank, hazardous area Zone 20

2 Electronic insert

3 Supply voltage

T_a Ambient temperature

T_p Process temperature

Electrical connection data:

Electronic insert	Supply voltage U_b	Relay circuit
FEM22	10... 45 V DC	—
FEM24	19...253 V AC or 19... 55 V DC	253 V AC / 6 A, 1500 VA / $\cos \varphi = 1$, 750 VA / $\cos \varphi > 0.7$

Maximum surface temperature:

Ambient temperature T_a	Process temperature T_p	Surface temperature: Zone 20 (under fault condition)	Surface temperature: housing (under fault condition)
-40 °C...+70 °C	-40 °C...+150 °C	T 170 °C	T 90 °C

**Safety instructions:
Installation**

- Install the device according to the manufacturer's instructions and any other valid standards and regulations.
- The electronics enclosure of the level limit switch is suitable for equipment protection level Dc, while the sensor is suitable for equipment protection level Da.
- Do not operate the device outside the specified electrical, thermal and mechanical parameters.
- Changes in electrical and mechanical parts of the equipment could harm the type of explosion protection and are not allowed for the user.
- The housing of transmitter is equipped with a ground terminal; users must ensure that it is reliably connected to ground during installation and use.
- Max. heat developed at the device surface in equipment protection level Da under fault conditions: ≤ 20 K (measured when device covered with a layer of dust greater than 50 mm).
- Max. heat developed at the housing surface in equipment protection level Dc under fault conditions: ≤ 20 K.
- Support extension tube of the device if a dynamic load is expected.
- Only install the devices in media for which the wetted materials have sufficient durability.
- Use a process connection seal that meets the material compatibility and temperature requirements.
- After mounting and connecting the sensor, check that a degree of protection of at least IP65 to EN 60529 has been attained (screw the cover tight and fix the cover fastener, mount cable glands correctly).
- Only use cable glands or blind-plugs with Ex approval and ingress protection of IP6X.
- Do not open in an explosive atmosphere.

Accessory high pressure sliding sleeve

- The high pressure sliding sleeve can be used for a continuous setting of the switch point and is suited for zone division if mounted properly (→ Operating Instructions).

www.endress.com/worldwide

Endress + Hauser 
People for Process Automation

XA00424F-B/00/EN/13.13
71214163
CCS/FM 9.0

