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# Safety Instructions
# **Liquipoint T FTW31, FTW32**

II 2 G Ex ia IIC Gb
II 2 G Ex ia [ia] IIC Gb


Endress+Hauser
People for Process Automation

# Liquipoint T FTW31, FTW32

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## About this document

This document has been translated into several languages. Legally determined is solely the English source text.

The document translated into EU languages is available:
- In the download area of the Endress+Hauser website: www.endress.com -> Downloads -> Manuals and Datasheets -> Type: Ex Safety Instruction (XA) -> Text Search: ...
- In the Device Viewer: www.endress.com -> Product tools -> Access device specific information -> Check device features

If not yet available, the document can be ordered.

## Associated documentation

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

KA00204F/00, TI00375F/00

## Supplementary documentation

Explosion-protection brochure: CP00021Z/11

The Explosion-protection brochure is available:
- In the download area of the Endress+Hauser website: www.endress.com -> Downloads -> Brochures and Catalogs -> Text Search: CP00021Z
- On the CD for devices with CD-based documentation

## Manufacturer's certificates

### EU Declaration of Conformity

Declaration Number:
EG03009

The EU Declaration of Conformity is available:
In the download area of the Endress+Hauser website:
www.endress.com -> Downloads -> Declaration -> Type: EU Declaration -> Product Code: ...

### EU type-examination certificate

Certificate number:
TÜV 03 ATEX 2069X

List of applied standards: See EU Declaration of Conformity.

**Manufacturer address**

Endress+Hauser SE+Co. KG
Hauptstraße 1
79689 Maulburg, Germany

Address of the manufacturing plant: See nameplate.

**Other standards**

Among other things, the following standards shall be observed in their current version for proper installation:

- IEC/EN 60079-14: "Explosive atmospheres - Part 14: Electrical installations design, selection and erection"
- EN 1127-1: "Explosive atmospheres - Explosion prevention and protection - Part 1: Basic concepts and methodology"

**Extended order code**

The extended order code is indicated on the nameplate, which is affixed to the device in such a way that it is clearly visible. Additional information about the nameplate is provided in the associated Operating Instructions.

**Structure of the extended order code**

| | | | | |
|---|---|---|---|---|
| FTW3x | – | ********** | + | A*B*C*D*E*F*G*.. |
| *(Device type)* | | *(Basic specifications)* | | *(Optional specifications)* |

* = Placeholder
At this position, an option (number or letter) selected from the specification is displayed instead of the placeholders.

*Basic specifications*

The features that are absolutely essential for the device (mandatory features) are specified in the basic specifications. The number of positions depends on the number of features available.
The selected option of a feature can consist of several positions.

*Optional specifications*

The optional specifications describe additional features for the device (optional features). The number of positions depends on the number of features available. The features have a 2-digit structure to aid identification (e.g. JA). The first digit (ID) stands for the feature group and consists of a number or a letter (e.g. J = Test, Certificate). The second digit constitutes the value that stands for the feature within the group (e.g. A = 3.1 material (wetted parts), inspection certificate).

More detailed information about the device is provided in the following tables. These tables describe the individual positions and IDs in the extended order code which are relevant to hazardous locations.

## Extended order code: Liquipoint T

The following specifications reproduce an extract from the product structure and are used to assign:
- This documentation to the device (using the extended order code on the nameplate).
- The device options cited in the document.

*Device type*

FTW31, FTW32

*Basic specifications*

| **Position 1 (Approval)** | | |
|---|---|---|
| **Selected option** | | **Description** |
| FTW3x | D | ATEX II 2 G Ex ia IIC T5 Gb [1]<br>ATEX II 2 G Ex ia \|ia\| IIC T6 Gb [2]<br>WHG, XA, leakage-detection, note safety instruction (XA)<br>(electrostatic charging) |

1) Only in connection with Position 7 = 0
2) Only in connection with Position 7 = 8

| **Position 7 (Electronics, Output)** | | |
|---|---|---|
| **Selected option** | | **Description** |
| FTW3x | 0 | Separate instrumentation |
| | 8 | FEW58; NAMUR |

*Optional specifications*

No options specific to hazardous locations are available.

**Safety instructions: General**

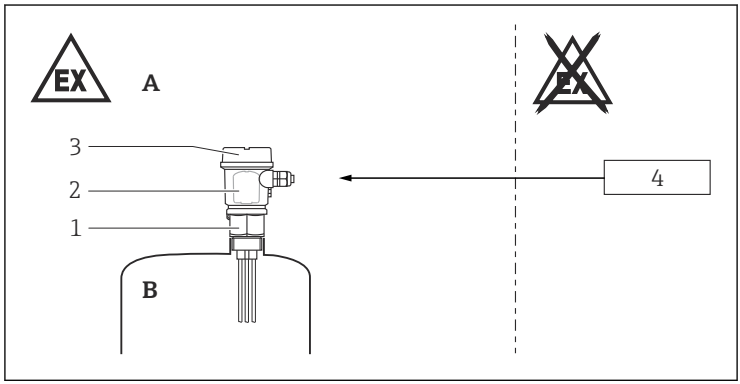
- The device is intended to be used in explosive atmospheres as defined in the scope of EN IEC 60079-0 or equivalent national standards. If no potentially explosive atmospheres are present or if additional protective measures have been taken: The device may be operated according to the manufacturer's specifications.
- Comply with the installation and safety instructions in the Operating Instructions.
- Staff must meet the following conditions for mounting, electrical installation, commissioning and maintenance of the device:
  - Be suitably qualified for their role and the tasks they perform
  - Be trained in explosion protection
  - Be familiar with national regulations
- Install the device according to the manufacturer's instructions and national regulations.
- Do not operate the device outside the specified electrical, thermal and mechanical parameters.
- Avoid electrostatic charging:
  - Of plastic surfaces (e.g. enclosure, sensor element, special varnishing, attached additional plates, ..)
  - Of isolated capacities (e.g. isolated metallic plates)

**Safety instructions: Special conditions**

- Probes can be used in gases of Group IIC if avoiding electrostatic charging (e.g. through friction, cleaning, maintenance, strong medium flow). These probes are marked by the warning sign "Avoid Electrostatic Charge".
- Avoid electrostatic charging of the device (e.g. friction, cleaning, maintenance, strong medium flow).
- To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
- In the event of additional or alternative special varnishing on the enclosure or other metal parts or for adhesive plates:
  - Observe the danger of electrostatic charging and discharge.
  - Do not install in the vicinity of processes (≤ 0.5 m) generating strong electrostatic charges.

**Safety instructions: Installation**

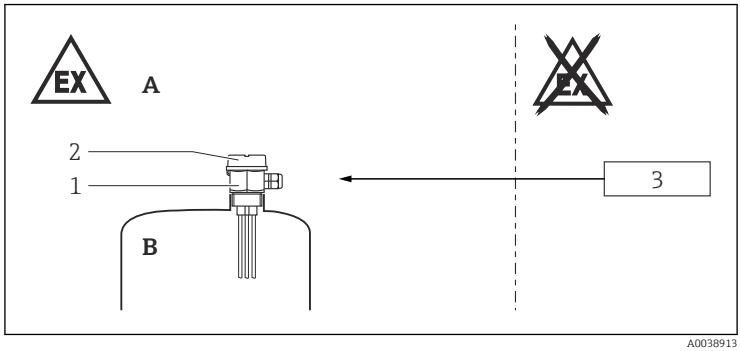
*Basic specification, Position 7 = 8*




*1*

*A Zone 1*
*B Tank; Zone 1*
*1 FTW3x*
*2 Electronic insert*
*3 Enclosure*
*4 Associated intrinsically-safe power supply unit*

*Basic specification, Position 7 = 0*




*2*

*A Zone 1*
*B Tank; Zone 1*
*1 FTW3x*
*2 Enclosure*
*3 Certified associated apparatus*

- Observe the pertinent guidelines when interconnecting intrinsically safe circuits.
- To maintain the ingress protection of the enclosure IP66: Install the enclosure cover and cable glands correctly.

## Temperature tables

*Basic specification, Position 7 = 8*

| Temperature class | Process temperature $T_p$ (process) | Ambient temperature $T_a$ (ambient) |
|---|---|---|
| T6 | ≤ 85 °C | −40 °C ≤ $T_a$ ≤ +60 °C |

*Basic specification, Position 7 = 0*

| Temperature class | Process temperature $T_p$ (process) | Ambient temperature $T_a$ (ambient) |
|---|---|---|
| T5 | ≤ 95 °C | −40 °C ≤ $T_a$ ≤ +95 °C |

## Connection data

| *Basic specification, Position 7 = 8* | Electrical data |
|---|---|
| NAMUR input | $U_i$ = 16 $V_{DC}$<br>$I_i$ = 52 mA<br>$P_i$ = 242 mW<br>$L_i$ = negligible<br>$C_i$ = negligible |
| Sensor-probe output | $U_o$ = 7.2 $V_{DC}$<br>$I_o$ = 1.6 mA<br>$P_o$ = 3 mW<br>$L_o$ = 1 H<br>$C_o$ = 11.8 µF |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