

# Safety Instructions

## Liquipoint T FTW31, FTW32

Ex ia IIC T5 Gb

Ex ia [ia Ga] IIC T6 Gb





# Liquipoint T FTW31, FTW32

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**About this document**

The document number of these Safety Instructions (XA) must match the information on the nameplate.

**Associated documentation**

To commission the device, please observe the Operating Instructions pertaining to the device:

KA00204F, TI00375F

**Supplementary documentation**

Explosion protection brochure: CP00021Z

The explosion protection brochure is available on the Internet:

[www.endress.com/Downloads](http://www.endress.com/Downloads)

**Certificates and declarations****NEPSI Declaration of Conformity**

Certificate number:

GYJ24.1194X

Affixing the certificate number certifies conformity with the following standards (depending on the device version):

- GB/T 3836.1-2021
- GB/T 3836.4-2021

**Manufacturer address**

Endress+Hauser SE+Co. KG

Hauptstraße 1

79689 Maulburg, Germany

Address of the manufacturing plant: See nameplate.

**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*..
<i>(Device type)</i>		<i>(Basic specifications)</i>		<i>(Optional specifications)</i>

\* = 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	2	NEPSI Ex ia IIC T5 Gb <sup>1)</sup> NEPSI Ex ia [ia Ga] IIC T6 Gb <sup>2)</sup>

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 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

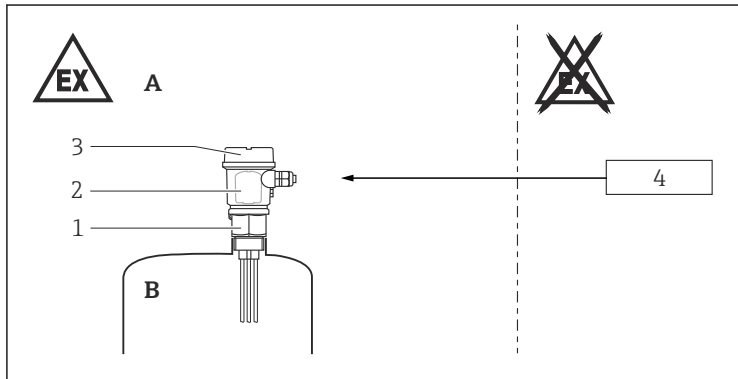
- For installation, use and maintenance of the device, users must also observe the requirements stated in the Operating Instructions and the standards:
  - GB 50257-2014: "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".
  - GB/T 3836.13-2021: "Explosive atmospheres, Part 13: Equipment repair, overhaul, reclamation and modification".
  - GB/T 3836.15-2017: "Explosive atmospheres, Part 15: Electrical installations design, selection and erection".
  - GB/T 3836.16-2022: "Explosive atmospheres, Part 16: Electrical installations inspection and maintenance".
  - GB/T 3836.18-2017: "Explosive atmospheres, Part 18: Intrinsically safe electrical systems".
- 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:  
Specific conditions of use**

- 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 ( $\leq 0.5$  m) generating strong electrostatic charges.

## Safety instructions: Installation

### Basic specification, Position 7 = 8



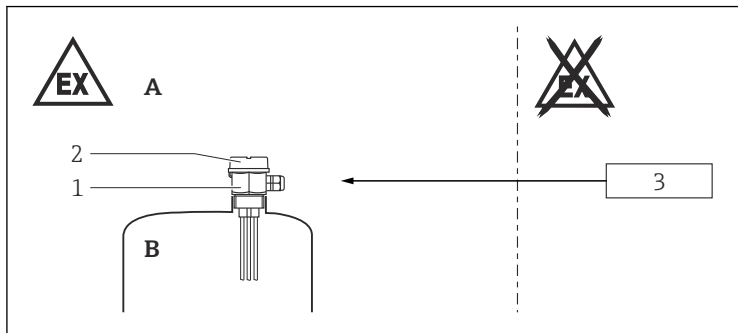
A0038912



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



A0038913



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	$\leq 85\text{ }^\circ\text{C}$	$-40\text{ }^\circ\text{C} \leq T_a \leq +60\text{ }^\circ\text{C}$

*Basic specification, Position 7 = 0*

Temperature class	Process temperature $T_p$ (process)	Ambient temperature $T_a$ (ambient)
T5	$\leq 95\text{ }^\circ\text{C}$	$-40\text{ }^\circ\text{C} \leq T_a \leq +95\text{ }^\circ\text{C}$

## Connection data

<i>Basic specification, Position 7 = 8</i>	Electrical data
NAMUR input	$U_i = 16\text{ V}_{\text{DC}}$ $I_i = 52\text{ mA}$ $P_i = 242\text{ mW}$ $L_i = \text{negligible}$ $C_i = \text{negligible}$
Sensor-probe output	$U_o = 7.2\text{ V}_{\text{DC}}$ $I_o = 1.6\text{ mA}$ $P_o = 3\text{ mW}$ $L_o = 1\text{ H}$ $C_o = 11.8\text{ }\mu\text{F}$







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