



**Instructions in accordance with directive 2014/34/EU**

TÜV 07 ATEX 554018 X

**Radio Transmitter type VISY-RFT-L**

Edition: 07.2017

### **I Range of application**

The radio transmitter type VISY-RFT-L is an intrinsically safe apparatus for transmitting data from the level measurement from potentially explosive atmospheres. The radio transmitter is operated with a replaceable battery pack.

### **II Standards**

The radio transmitter is designed in accordance with the following European standards

EN 60079-0:2012 + A11:2013	Equipment – General requirements
EN 60079-11:2012	Equipment protection by intrinsic safety "i"

### **III Instructions for safe ...**

#### **III.a ... use**

The radio transmitter serves as intrinsically safe equipment and is suitable for use in hazardous areas (Zone 0). The intrinsically safe sensor circuit may be led into Zone 0 and can be used for all gas groups (IIA, IIB and IIC).

The certificate applies to the device version VISY-RFT-L with the battery pack "L0", "L1" or "L2".

#### **III.b ... assembling and dismantling**

To install or make changes to the radio transmitter, such as changing the battery unit, it is necessary to disassemble the upper enclosure part from the lower enclosure part. To do this, loosen the four screws on the upper enclosure part. After the work, the enclosure must be closed again with the four screws.

#### **III.c ... installation**

Special requirements inter alia EN 60079-14 or the local installation regulations must be observed.

The radio transmitter is suitable for wall mounting. To reach the mounting holes, the enclosure has to be dismantled.

At the wiring (preferably blue cable) from the radio transmitter to the sensor, the permissible inductance and capacitance under point V must not be exceeded.

#### **III.d ... adjustment**

No Ex-relevant adjustments are necessary for the operation of the radio transmitter.

#### **III.e ... putting into service**

Before putting into service, all devices must be checked for correct connection and installation.

#### **III.f ... maintenance (servicing and emergency repair)**

The radio transmitter is generally maintenance-free. In the event of a defect, this must be returned to FAFNIR or one of its distributors.

Warning: The cleaning of the enclosure may only be carried out with a damp cloth.

There is consistency with the requirements for the dielectric strength between the intrinsic circuit and the chassis of the radio transmitter in accordance with EN 60079-11, section 6.3.13.

When replacing the battery pack, only FAFNIR battery packs (L0, L1 or L2) may be used. Replacing the battery pack does not require the exclusion of an explosive atmosphere.



#### IV Equipment marking

- 1 Manufacturer: FAFNIR GmbH, 22525 Hamburg
- 2 Type designation: VISY-RFT-L
- 3 Certificate number: TÜV 07 ATEX 554018 X
- 4 Ex marking: II 1 G Ex ia IIC T4 Ga
- 5 Warning marking: WARNING – Potential electrostatic charging hazard – See instructions
- 6 CE marking: 0044
- 7 Use of battery: Use only replaceable battery pack FAFNIR L0, L1 or L2
- 8 Technical data: See instructions for technical data

In addition, the battery pack is marked as follows:

- 1 Manufacturer: FAFNIR GmbH, 22525 Hamburg
- 2 Type designation: L0, L1 or L2
- 3 Use: Use only on VISY-RFT-L

#### V Technical data

Only FAFNIR battery packs L0, L1 or L2 may be used as auxiliary energy for the radio transmitter!

The sensor circuit is designed in the type of protection "intrinsic safety" (ia), with a linear output characteristic. The initial values are:

Output voltage	$U_o \leq 7,8 \text{ V}$
Output current	$I_o \leq 59 \text{ mA}$
Output power	$P_o \leq 98 \text{ mW}$
Inner inductance	$L_i$ negligibly small
Inner capacitance	$C_i$ negligibly small

The permissible external inductance and capacitance are:

	IIB		IIC	
$L_o \leq$	10 mH	5 mH	50 mH	20 mH
$C_o \leq$	690 nF	950 nF	2.6 $\mu\text{F}$	4 $\mu\text{F}$

The maximum values of the pairs of values may simultaneously be used as concentrated capacity and concentrated inductance.

The maximum temperature is:

$$\text{Ambient temperature: } T_a = -40 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$$

For use in category 1G:

The process pressure of the media must be between 0.8 bar and 1.1 bar in the presence of explosive steam / air mixtures. If no explosive mixtures are used, the devices may also be operated outside this range in accordance with their manufacturer's specification.

General remark (see also EN 60079-0, clause 1):

Zone 0 is only given under atmospheric conditions:

Temperature range:  $-20 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$

Pressure range: 0,8 bar ... 1,1 bar

Oxidant: Air (oxygen content approx. 21 %)

The radio transmitter achieves a degree of protection provided by enclosure of:

Degree of protection  $\geq \text{IP66}$

#### VI Special conditions of use

The radio transmitter is built in a plastic enclosure. The risk of ignition by static electricity due to friction on the enclosure is to be avoided.