



Instructions according to IEC 60079-0

IECEX TUN 17.0019X

Radio Transmitter type VISY-RFT

Stand: 06.2023

I Range of application

The radio transmitter is an intrinsically safe apparatus for transmitting sensor data from potentially explosive atmospheres. The radio transmitter is operated with a replaceable battery pack.

II Standards

The radio transmitter is designed according to the following international standards

IEC 60079-0:2017-12, Ed. 7.0 Equipment – General requirements

IEC 60079-11:2011-06, Ed. 6.0 Equipment protection by intrinsic safety "i"

III Instructions for safety

III.a Use

The radio transmitter in type of protection intrinsic safety is suitable for use in potentially explosive atmospheres (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 with the battery pack "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 IEC 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, overhaul and 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 IEC 60079-11, section 6.3.13.

When replacing the battery pack, only FAFNIR battery packs (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
- 3 Certificate number: IECEX TUN 17.0019X
- 4 Ex marking: Ex ia [ia Ga] IIC T4 Ga
- 5 Warning marking: WARNING – Potential electrostatic charging hazard – See instructions
- 6 Use of battery: Use only replaceable battery pack FAFNIR L2
- 7 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: L2
- 3 Use: Use only on VISY-RFT

V Technical data

Only FAFNIR battery pack 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
$C_o \leq$	780 nF	1 μF	4.6 μF	6.1 μF

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

The permissible external inductance to resistance ratio is:

$$L_o/R_o \leq 309 \mu\text{H}/\Omega$$

The maximum temperature is:

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

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

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

VI Specific 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. The equipment shall be cleaned only with damp or antistatic cloth.