

Translation

(1) **EC-Type Examination Certificate**



(2) Equipment and protective systems intended for use in potentially explosive atmospheres
- Directive 94/9/EC



(3) EC-Type Examination Certificate Number

TÜV 03 ATEX 2171

(4) Equipment: Level detector type LOF 1.1...EX

(5) Manufacturer: FAFNIR GmbH

(6) Address: Bahrenfelder Strasse 19
D-22765 Hamburg

(7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report N° 03YEX550487-2.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50 014:1997

EN 50 020:1994

EN 50 284:1999

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:



II 1/2 G EEx ia IIC T6 bzw. II 2 G EEx ia IIC T6

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Hanover, 2005-07-07


Head of the
Certification Body

This certificate may only be reproduced without any change, schedule included.
Excerpts or changes shall be allowed by the TÜV NORD CERT GmbH & Co. KG

(13)

SCHEDULE

(14) **EC-Type Examination Certificate N° TÜV 03 ATEX 2171**

(15) Description of equipment

The level detector type LOF 1.1... Ex – consisting of the sensor, the probe tube, the screw-in unit or flange and the connection socket – is connected to the measuring transducer LOF 500 ... This level detector is installed on tanks and pipes. A short circuit or breakage of the connecting cable between the level detector and the measuring transducer is indicated.

Use as category 1/2 operating equipment

These level detectors are installed in areas subject to explosion hazards that require category 1/2 operating equipment.

The permissible ambient temperature range, depending on the temperature class, is shown in the following table:

Temperature class	Ambient temperature range	Medium temperature
T3	+180 °C	-20 °C to +60 °C
T4	+110 °C	-20 °C to +60 °C
T6	+60 °C	-20 °C to +60 °C

In the presence of explosive mixtures of vapour and air, the process pressure of the media must be between 0.8 bar and 1.1 bar. If explosive mixtures are not present, the devices may also be operated beyond this range in compliance with their manufacturer's specifications.

Use as category 2 operating equipment

These level detectors are installed in areas subject to explosion hazards for category 2 operating equipment.

The permissible ambient temperature range, depending on the temperature class, is shown in the following table:

Temperature class	Ambient temperature range	Medium temperature
T3	-25 °C to 180 °C	+180 °C
T4	-25 °C to 110 °C	+130 °C
T6	-25 °C to 60 °C	+80 °C

Electrical data

Type LOF 1.1... Ex

Signal generator circuit(s) in the type of protection intrinsic safety EEx ia IIB/IIC only for connection to the respective measuring transducer of the type LOF 500... in accordance with EC prototype test certificate no. TÜV 03 ATEX 2172

The signal generator circuits are DC-isolated from one another and from the earth connection.

Schedule EC-Type Examination Certificate N° TÜV 03 ATEX 2171

(16) The test documents are listed in the test report no. 03YEX550487-2.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones