



Translation

(1) **EC TYPE-EXAMINATION CERTIFICATE**

(2) Equipment or Protective System intended for use in potentially explosive atmospheres - **Directive 94/9/EC**

(3) EC-Type Examination Certificate Number

TÜV 99 ATEX 1496

(4) Equipment: **Magnetostrictive Tank Level Gauge VISY-Stick**

(5) Manufacturer: **Fafnir GmbH**

(6) Address: **Bahrenfelder Strasse 19
D – 22765 Hamburg**

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

(8) The TÜV Hannover/Sachsen-Anhalt e.V., 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° 99/PX22990.

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

EN 50 014: 1997

EN 50 020: 1994

EN 50284:1997

(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 and construction of the specified equipment or protective system according to Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and placing on the market of this equipment or protective system.

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

 **II 1/2 G EEx ia IIC T6**

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hanover, 30.11.1999


**Head of the
Certification Body**





SCHEDULE

(13)

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 99 ATEX 1496**

(15) Description of equipment

The Magnetostrictive Tank Level Gauge VISY-Stick is used for the detection of filling levels in hazardous explosive areas.

In the area of the category 1 (Zone 0) it is only allowed to arrange the sensor pipe and the floaters.

The maximal permissible ambient temperature has to be taken from the following table:

	T6	T5	T4
max. ambient temperature	50 °C	65 °C	75 °C

Electrical data

Signal- and supply circuit in type of protection „Intrinsic Safety“ EEx ia IIC
(terminals +, A, B, -) only for the connection to certified intrinsically safe
circuits with the following maximum values:

$$\begin{aligned}U_i &= 15 \text{ V} \\I_i &= 30 \text{ mA} \\P_i &= 100 \text{ mW}\end{aligned}$$

The maximum effective internal inductance is 0,1 mH.

The maximum effective internal capacitance is 10 nF.

(16) Test documents consisting of 10 sheets, drawings and part list are listed in the test report.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones

Translation



1. SUPPLEMENT to

EC TYPE-EXAMINATION CERTIFICATE No. TÜV 99 ATEX 1496

of the company: FAFNIR GmbH
Bahrenfelder Strasse 19
D-22765 Hamburg

In the future, the Magnetostrictive Tank Level Gauge VISY-Stick may also be manufactured and operated according to the test documents listed in the test report.

The amendments concern the mechanical design of the device. Moreover the marking and the ambient temperature has been supplemented.

In the case of the erection of the complete tank level gauge in areas that require apparatus of category 1 the marking is: II 1 G EEx ia IIC T4.

The maximum permissible ambient temperature is +60 °C in this case.

The electrical data and all other data apply unchanged.

Test documents are listed in the test report N° 02YEX133817.

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hannover, 2002-02-13

A handwritten signature in black ink, appearing to read 'G. W. W. W.' or similar.

Head of the
Certification Body

Translation

2. SUPPLEMENT to

EC TYPE-EXAMINATION CERTIFICATE No. TÜV 99 ATEX 1496

Test object: **Filling level sensor VISY-Stick**
Client: **FAFNIR GmbH**
Address: **Bahrenfelder Straße 19**
D-22765 Hamburg

Alterations:

In the future the filling level sensor VISY-Stick may also be manufactured and operated according to the test documents listed in the test report.

The modifications refer to the mechanical construction of the item. Further the electrical data have been changed. From now on they read:

Signal and Supply Circuit: in ignition protection type intrinsic safety EEx ia IIB/IIC
only for connection to a certified intrinsically safe electric circuit
with the following maximum values:
maximum values: $U_i = 15 \text{ V}$
 $I_i = 60 \text{ mA}$
 $P_i = 100 \text{ mW}$
 $C_i = 10 \text{ nF}$
 $L_i = 0,1 \text{ mH}$

All further information also applies in unaltered form to this supplement.

The test object, including this 2. supplement, also fulfils the requirements of the following standards:

EN 50 014:1997+A1+A2 **EN 50 020:2002** **EN 50 284:1999**

(16) Test documents are listed in the test report N° 06 YEX 333058-1.

(17) Special conditions for safe use

none

2. Supplement to EC Type-Examination Certificate No. TÜV 99 ATEX 1496

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH & Co. KG
Am TÜV 1
D-30519 Hannover
Tel.: +49 (0) 511 986-1455
Fax: +49 (0) 511 986-1590

Hanover, 2006-03-23

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Head of the
Certification Body

Translation

3. SUPPLEMENT

to Certificate No.	TÜV 99 ATEX 1496
Equipment:	Filling level sensor VISY-Stick ...
Manufacturer:	FAFNIR GmbH
Address:	Bahrenfelder Straße 19 22765 Hamburg Germany
Order number:	8000382214
Date of issue:	2010-04-19

Amendments:

In the future the filling level sensor VISY-Stick ... may also be manufactured and operated according to the test documents listed in the test report.

The modifications refer to the mechanical construction and the layout of the item.

Further the types of the filling level sensor were expanded.

- VISY-Stick Advanced
- VISY-Stick Advanced mit VISY-Density
- VISY-Stick Biodiesel
- VISY-Stick E10
- VISY-Stick Ethanol
- VISY-Stick Flex
- VISY-Stick Interstitial
- VISY-Stick LPG
- VISY-Stick N (für AdBlue)
- VISY-Stick Standard
- VISY-Stick Sump Dispenser
- VISY-Stick Sump Manhole

The device will then be labelled as follows:  II 1 G Ex ia IIC T4 Ga or
 II 1/2 G Ex ia IIC T6 Ga/Gb

The equipment incl. of this supplement meets the requirements of these standards:

EN 60079-0:2009 **EN 60079-11:2007** **EN 60079-26:2007**

All other data apply unchanged for this supplement.

(16) The test documents are listed in the test report No. 10203382214.

(17) Special conditions for safe use

none

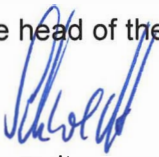
3. Supplement to Certificate No. TÜV 99 ATEX 1496

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the certification body

A handwritten signature in blue ink, appearing to be "Schwedt".

Schwedt

Hanover office, Am TÜV 1, 30519 Hannover, Tel.: +49 (0) 511 986-1455, Fax: +49 (0) 511 986-1590