

Translation

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

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



- (3) **Certificate Number** TÜV 99 ATEX 1508 X **issue:** 00
- (4) for the product: Evaluation Unit type VAPORIX-Control ...
- (5) of the manufacturer: **FAFNIR GmbH**
- (6) Address: Schnackenburgallee 149 c, 22525 Hamburg, Germany
- Order number: 8000 460585
- Date of issue: 2016-05-25

- (7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.
- (8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential ATEX Assessment Report No. 16 203 181780.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012 + A11:2013 EN 60079-11:2012
except in respect of those requirements listed at item 18 of the schedule.
- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. 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 product shall include the following:

 **II (1) G [Ex ia Ga] IIB**

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified 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 notified body


Karl-Heinz Schwedt

Hanover office, Am TÜV 1, 30519 Hannover, Tel. +49 511 998-61455, Fax +49 511 998-61590

(13) SCHEDULE

(14) EU-Type Examination Certificate No. TÜV 99 ATEX 1508 X issue 00

(15) Description of product

The evaluation unit is a part of an automatic monitoring device to check the function of the vapour recovery systems at petrol stations. The evaluation unit must only be installed outside of potential explosive atmosphere. Two intrinsic safety sensors as maximum can connected to every evaluation unit.

The evaluation unit type VAPORIX-Control ... may also be manufactured according to the ATEX test documents listed in the test report.

The changes concern the extension of type VAPORIX-Control II as well as the change of the manufacturer address.

Type designation:

VAPORIX-Control	Evaluation unit in a top hat rail enclosure
VAPORIX-Control Basic	Evaluation unit in a top hat rail enclosure without RS-485 communication
VAPORIX-Control II	Evaluation unit in a built-on enclosure

Technical data:

Type VAPORIX-Control and Type VAPORIX-Control Basic

Supply circuit „230V~“ (terminals L, N, PE)	U = 115/230 V a. c. \pm 10 %, 50 ... 60 Hz, about 18 VA U _m = 130 V at 115 V a. c. U _m = 253 V at 230 V a. c.
--	---

Sensor circuits „B“ and „A“ (terminals 1 to 8)	in type of protection “Intrinsic Safety” Ex ia IIB Maximum values per circuit:
---	---

U _o = 23.9 V
I _o = 325 mA
P _o = 1.9 W
R = 76 Ω
Characteristic line: linear
L _o = 380 μ H
C _o = 480 nF

Aforementioned maximum values are valid at coincidental appearance of concentrated capacitance and inductance.

Clock input „Pulse“ (terminals -B+, -A+)	U = 5 V ... 30 V U _m = 134 V
---	--

Control outputs „Out B“ and „Out A“ (terminals -2+, -1+)	U \leq 30 V I \leq 200 mA U _m = 134 V
---	--

Voltage output „5V“ (terminals -, +)	U = 5 V I \leq 50 mA
---	---------------------------

Two-wire RS-485 „RS485“ (terminals G, B, A)	U < 12 V U _m = 134 V
--	------------------------------------

Four-wire RS-485 „RS485-4“ (plug connector)	U < 12 V U _m = 134 V
--	------------------------------------

RS-232 interface „Service“ (Sub D socket)	U \leq 12 V U _m = 134 V
--	---

Schedule to EU-Type Examination Certificate No. TÜV 99 ATEX 1508 X issue 00

Type VAPORIX-Control II

Supply circuit „24V“

(terminals +, -)

Sensor circuits „A“ and „B“

(terminals 1 to 8)

$U = 24 \text{ V d. c. } \pm 5 \%, \text{ ca. } 9 \text{ W}$

$U_m = 253 \text{ V}$

in type of protection "Intrinsic Safety" Ex ia IIB

Maximum values per circuit:

$U_o = 22.2 \text{ V}$

$I_o = 371 \text{ mA}$

$P_o = 2.1 \text{ W}$

$R = 60 \Omega$

Kennlinie: linear

$L_i = 10 \mu\text{H}$

$C_i = 200 \text{ nF}$

$L_o = 440 \mu\text{H}$

$C_o = 510 \text{ nF}$

Aforementioned maximum values are valid at coincidental appearance of concentrated capacitance and inductance.

RS-422 „RS422“

(plug connector)

RS-485 „RS485“

(terminals A, B, G)

$U < 12 \text{ V}$

$U_m = 134 \text{ V}$

$U < 12 \text{ V}$

$U_m = 134 \text{ V}$

Permissible ambient temperature range:

-20 °C to +65 °C

All further data are valid unchanged.

(16) Drawings and documents are listed in the ATEX Assessment Report No. 16 203 181780

(17) Specific Conditions for Use

1. The evaluation unit type VAPORIX-Control II must installed in an enclosure with a degree of protection provided by enclosure according to IEC 60529 of at least IP20.
2. The potential equalization terminal (PA) on the evaluation unit type VAPORIX-Control II must bonded to the potential equalization system of the potential explosive area.

(18) Essential Health and Safety Requirements

no additional ones

- End of Certificate -