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 2369

(4) Equipment: Measuring Transducer SEPARIX-Control C

(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° 04YEX550487-6.

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

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

(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:

Ex II (1) G [EEx ia] IIB/IIC

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TÜV CERT-Certification Body
Am TÜV 1
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Hanover, 2004-01-28

Head of the Certification Body

TÜV NORD CERT

(13) **SCHEDULE**

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 03 ATEX 2369**

(15) Description of equipment

The Measuring Transducer SEPARIX-Control C is used for the power supply and analysis of the Oil Separator Sensors SEPARIX-C H or SEPARIX-C L.

Electrical Data

Auxiliary power circuit (Terminals L, N and PE)
U = 230 V AC, ± 10 %, 50...60 Hz, approx. 4 VA
U_m = 253 V

Sensor circuit (Terminals 1, 2 and 3)
in the type of protection Intrinsic Safety EEx ia IIC resp. EEx ia IIB
Maximum values: U_o = 14.3 V
I_o = 21.2 mA
P_o = 75.7 mW
Characteristic curve: linear

C_i negligibly small
L_i negligibly small

The maximum permissable values for the external inductance (L_o) and capacitance (C_o) have to be taken from the following table:

	EEx ia IIC	EEx ia IIB
L_o	80 mH	300 mH
C_o	0.68 µF	4.28 µF

Output circuit (Terminals 4, 5 and 6)
U ≤ 250 V, I ≤ 5 A, P ≤ 500 VA, cos φ ≥ 0,7
U_m = 253 V

The sensor circuit is safe galvanically separated from the auxiliary power and output circuit up to a peak value of the voltage of 375 V.

(16) Test documents are listed in the test report No.: 04YEX550487-6.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones

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Translation

1. SUPPLEMENT to

EC TYPE-EXAMINATION CERTIFICATE No. TÜV 03 ATEX 2368 X

Test object:	**oil separator sensor SEPARIX-C H and SEPARIX-C L**
Client:	**FAFNIR GmbH**
Address:	**Bahrenfelder Straße 19** **D-22765 Hamburg**

Alterations:

The oil separator sensor SEPARIX-C H or SEPARIX-C L is allowed to be manufactured from now on according to the test documents listed in the test report. The alterations refer to the internal structure as well as to the electrical data of the device.

Electrical data

Signal circuit (cable tail-end)	in the type of protection intrinsic safety EEx ia IIB only to be connected to certified intrinsically safe circuits with the following maximum values: U_o = 15 V I_o = 30 mA P_o = 100 mW $C_i \leq$ 1 nF L_i negligibly small

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

The test object, including this 1. 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° 05 YEX 551985-4.

(17) Special conditions for safe use

no additional conditions

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1. Supplement to EC Type-Examination Certificate No. TÜV 03 ATEX 2368 X

(18) Essential Health and Safety Requirements

no additional ones

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Hanover, 2005-06-01

Head of the
Certification Body