

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 05 ATEX 2819

(4) Equipment: **measuring transducer SEPARIX-Control CT**

(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° 05 YEX 551985-5.

(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:

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

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Head of the
Certification Body

(13)

SCHEDULE

(14) **EC-Type Examination Certificate N° TÜV 05 ATEX 2819**

(15) Description of equipment

The measuring transducer SEPARIX-Control CT is used for the power supply and analysis of oil separator sensors of the type SEPARIX-C... and analysis of high-level sensors of the type SEPARIX-T...

Electrical data

Auxiliary power circuit
(terminals L, N, and PE)

$U = 230 \text{ V AC}, \pm 10 \%, 50...60 \text{ Hz}, \text{ approx. } 8 \text{ VA}$
 $U_m = 253 \text{ V}$

SEPARIX-C...
Sensor circuit
(terminals 1, 2 and 3)

in the type of protection intrinsic safety EEx ia IIC
or EEx ia IIB

Maximum values: $U_o = 14.3 \text{ V}$
 $I_o = 21.2 \text{ mA}$
 $P_o = 75.7 \text{ mW}$

Characteristic: linear

$C_i \leq 1 \text{ nF}$
 L_i negligibly small

The permissible maximum values for the outer inductance (L_o) and capacitance (C_o) are included in the following table:

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

SEPARIX-T...
Sensor circuit
(terminals 4 and 5)

in the type of protection intrinsic safety EEx ia IIC
or EEx ia IIB

Maximum values: $U_o = 15.8 \text{ V}$
 $I_o = 154 \text{ mA}$
 $R_i = 157 \text{ } \Omega$
 $P_o = 600 \text{ mW}$

Characteristic: trapezoidal

$C_i \leq 0.3 \text{ nF}$
 L_i negligibly small

Schedule EC-Type Examination Certificate N° TÜV 05 ATEX 2819

The permissible maximum values for the outer inductance (L_o) and capacitance (C_o) are included in the following table:

EEx ia IIC		EEx ia IIB	
L_o	0.1 mH	0.44 mH	1 mH
C_o	310 nF	230 nF	1.6 μ F

Output circuit
(terminals 6 to 11)

$U \leq 250 \text{ V}$, $I \leq 5 \text{ A}$, $P \leq 500 \text{ VA}$, $\cos \varphi \geq 0.7$
 $U_m = 253 \text{ V}$

The sensor circuits are DC-isolated from the auxiliary power circuit and from the output circuit safely up to a peak value of 375 V.

(16) Test documents are listed in the test report N° 05 YEX 551985-5.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones