



Translation

EC-TYPE EXAMINATION CERTIFICATE

(1)

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

(3) EC-Type Examination Certificate Number



TÜV 02 ATEX 1816 X

(4) Equipment: Sensor type STS...

(5) Manufacturer: EGE-Elektronik Spezial Sensoren GmbH

(6) Address: Ravensberg 34
D-24214 Gettorf

(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° 02 YEX 162710.

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

EN 50014:1997 EN 50020:1994 EN 50284:1999 EN 50281-1-1:1999

(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 T4 resp. II 1 D T 100°C IP67

TÜV NORD CERT GmbH & Co. KG
TÜV CERT-Certification Body
Am TÜV 1
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Head of the
Certification Body



TÜV NORD CERT

Hanover, 2003-10-28

German original certificate
issued on 2002-05-06

(13)

SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1816 X**

(15) Description of equipment

The sensors type STS... are intended for the flow control of liquid and gaseous media in potentially explosive gas or dust atmospheres. The measuring sensor may be installed in areas with potentially explosive gas atmospheres that require category-1-apparatus and the enclosure may be installed in areas with potentially explosive gas atmospheres that require category-2-apparatus.

The whole sensor may be installed in areas with potentially explosive dust atmospheres that require category1.

In case that the potentially explosive gas or dust require no apparatus of category 1 the maximum permissible ambient temperatures, surface temperatures and temperature classes have to be taken from the following tables:

Use in the presence of combustible dust		
Sensor type	Ambient/Media temperature	Surface temperature for marking
STS 212 K, STS 212 S, STS 10...	75°C	152°C
STS...K, STS...S	85°C	126°C

Use in areas with potentially explosive gas atmospheres		
Sensor type	Ambient/Media temperature	Temperature class
STS 212 K, STS 212 S, STS 10...	65°C	T4
	85°C	T3
STS...K, STS...S	45°C	T6
	65°C	T5
	85°C	T4
	85°C	T3
STS...-KH	45°C	T6
	65°C	T5
	95°C	T4
	120°C	T3

Electrical data

Sensor circuit
(prefabricated cable resp.
plug)

in type of protection Intrinsic Safety EEx ia/ib IIC/IIB
only for the connection to certified intrinsically safe circuits
with the following maximum value:
 $P_i = 0.69 \text{ W}$

The effective internal capacitance and inductance are negligibly small.

(16) Test documents are listed in the test report No.: 02 YEX 162710.

(17) Special conditions for safe use

The measuring sensor may only be operated in potentially gas or dust atmospheres that require apparatus of category 1 in the case that atmospheric conditions are present (temperature range from -20°C to 60°C , pressure range from -20°C to 60°C). For these kind of applications the permissible ambient temperatures, surface temperatures and temperature classes have to be taken from the following tables.

Use in the presence of combustible dust		
Sensor type	Ambient/Media temperature	Surface temperature for marking
STS 212 K, STS 212 S, STS 10...	60°C	137°C
STS...K, STS...S	60°C	100°C

Use in areas with potentially explosive gas atmospheres		
Sensor type	Ambient/Media temperature	Temperature class
STS 212 K, STS 212 S, STS 10...	45°C	T4
	60°C	T3
STS...K, STS...S	35°C	T6
	45°C	T5
	60°C	T4
	60°C	T3
	60°C	T3
STS...-KH	35°C	T6
	45°C	T5
	60°C	T4
	60°C	T3

(18) Essential Health and Safety Requirements

no additional ones



Translation

1. SUPPLEMENT to

EC TYPE-EXAMINATION CERTIFICATE No. TÜV 02 ATEX 1816 X

of the company: EGE-Elektronik Spezial-Sensoren GmbH
Ravensberg 34
D-24214 Gettorf

In the future, the sensors type STS... may also be operated according to the test documents listed in the test report.

The amendments concern the extension of the electrical data

Electrical data

Sensor circuit
(prefabricated cable resp.
plug)

in type of protection Intrinsic Safety EEx ia/ib IIC/IIB
only for the connection to certified intrinsically safe circuits
with the following maximum value:

$$U_i = 13,7 \text{ V}$$

$$I_i = 200 \text{ mA}$$

$$P_i = 0.69 \text{ W}$$

The effective internal capacitance and inductance are negligibly small.

All further statements and the special conditions for safe use apply unchanged this supplement.

Test documents are listed in the test report N° 03 YEX 550629.

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