

Translation

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

TUV NORD



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

(3) **Certificate Number** TÜV 09 ATEX 555342

(4) for the component: Float switch type EX-S-** and EX-QFS-**

(5) of the manufacturer: E.L.B.-Füllstandsgeräte Bundschuh GmbH + Co.

(6) Address: An der Hartbrücke 6
64625 Bensheim
Germany

Order number: 8000555342

Date of issue: 2009-06-16

- (7) This component of an 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, notified body No. 0044 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 No. 09 203 555342.

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

EN 60079-0:2006

EN 60079-11:2007

EN 60079-26:2007

- (10) If the sign "U" is placed after the certificate number, it indicates that this certificate must not be confounded with an EC-Type Examination Certificate which is destined for an equipment or protective system. This partial certificate must only be used as a basis for an EC-Type Examination 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 component must include the following:

 **II 1 G Ex ia IIC T6**

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

Schwedt

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This certificate may only be reproduced without any change, schedule included.
Excerpts or changes shall be allowed by the TÜV NORD CERT GmbH

(13) **SCHEDULE**

(14) **EC-Type Examination Certificate No. TÜV 09 ATEX 555342**

(15) Description of component

The float switches type EX-S-** and EX-QFS-** are position-dependent switching devices for the use in explosive atmospheres which require electrical apparatus of the category 1. The housings are made of stainless steel or conductive plastic material. Depending on the type, different switching modules are used within the housings.

Technical data:

The maximum permissible media- and ambient temperature depending on the category and the temperature class has to be taken from the following tables.

Explosion hazardous areas that require electrical apparatus of the category 1:

Temperature class	Max. permissible media- and ambient temperature
T6...T1	60 °C

Explosion hazardous areas that require electrical apparatus of category 2:

Temperature class	Max. permissible media- and ambient temperature	
T6	80 °C	
T5	95 °C	
	Max. permissible	
	media-temperature	ambient temperature
T4	130 °C	100 °C
T3..T1	150 °C	100 °C

Electrical data for all devices:

Switching contact.....in type of protection „Intrinsic Safety“ Ex ia IIC/IIB
(connection cable of the device) only for the connection to certified intrinsically safe circuits with the following maximum values:

$$\begin{aligned}
 U_i &= 28 \text{ V} \\
 I_i &= 100 \text{ mA} \\
 P_i &= 700 \text{ mW}
 \end{aligned}$$

Characteristic line of the power supply: linear

$$\begin{aligned}
 \text{Internal inductance} & \quad C_i = 7.2 \text{ nF} \\
 \text{Internal capacitance} & \quad L_i = 36 \text{ }\mu\text{H}
 \end{aligned}$$

Schedule EC-Type Examination Certificate No. TÜV 09 ATEX 555342

(16) Test documents are listed in the test report No. 09 203 555342.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones