

Translation

(1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 15 ATEX E 109**
- (4) Equipment: **Transmitter type ESW-small Ex-i M 10-****
- (5) Manufacturer: **holthausen elektronik GmbH**
- (6) Address: **Wevelinghoven 38, 41334 Nettetal, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment 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 Test and Assessment Report BVS PP 15.2223 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2012 + A11:2013 General requirements**
EN 60079-11:2012 Intrinsic Safety "i"
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to 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 shall include the following:

 **II 2G Ex ia IIC T4 Gb**

DEKRA EXAM GmbH
 Bochum, dated 2015-11-05

Signed: Simanski

 Certification body

Signed: Dr. Wittler

 Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate**
BVS 15 ATEX E 109

(15) 15.1 Subject and type

Transmitter Type ESW-small Ex-i M 10-**

In the complete type designation, the asterisks are replaced by numerals indicating different variations of the transmitter which differ in measuring range, frequency range and signal evaluation.

These variants are not relevant for explosion protection.

15.2 Description

The transmitter type ESW-small Ex-i M 10-** is an electronic vibration monitor. It is mounted to the monitored machine with a threaded bolt and transforms the vibrations into a 4-20 mA-current signal.

The transmitter is a passive intrinsically safe apparatus and is suitable for use in areas requiring EPL Gb. All circuits have level of protection IIC ia.

The transmitter has a stainless steel enclosure with removable lid. The electronic is molded inside the enclosure. An indication-LED is protruding from the encapsulation; it is visible after unscrewing the lid of the enclosure. The transmitter is supplied via a permanently connected cable (max. 20 m length).

15.3 Parameters

15.3.1 Electrical data

Supply and signal circuit
permanently connected cable, wires white (+) and brown (-)

Max. input voltage	U_i	DC	28.8	V
Max. input current	I_i		125	mA
Max. input power	P_i		1	W

The effective capacitance C_i and effective inductance L_i of the apparatus are composed of the (concentrated) capacitance and inductance of the apparatus and the parameters of the connected cable:

Effective concentrated capacitance	10	nF
Effective concentrated inductance	30	μ H
Cable capacitance	211	nF/km
Cable inductance	0.65	mH/km

15.3.2	Ambient temperature range	T_a	-40 °C...50 °C
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- (16) Test and Assessment Report
BVS PP 15.2223 EG as of 2015-11-05

- (17) Special conditions for safe use
None

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 2015-11-05
BVS-Le/Nu A 20150564



Certification body



Special services unit