

[1] **EU-Type-Examination Certificate**

[2] Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere – **Directive 2014/34/EU**



[3] **EU-Type-Examination Certificate**

ZELM 07 ATEX 0355 X

(internal No. PTZ 17 ATEX 0004 X)

Rev. 0

[4] **Applicant:** PRÜFTECHNIK Dieter Busch AG

[5] **Address:** Oskar-Messter-Straße 19-21
85737 Ismaning
Germany

[6] **Equipment:** VIBXPERT Typ VIB 5.300 Ex - xx

[7] This Equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents referred to.

[8] Primara Test- und Zertifizier GmbH, Notified Body No. 2572 in accordance with the Council Directive, dated 26th February 2014 (2014/34/EG), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements related to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the directive. The examination and test results are recorded in the confidential reports ZELM Ex 0820717548, ZELM Ex 1180817625 and ZELM Ex 10415131114.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with to following standards:

EN 60079-0:2012 + A11:2013

EN 60079-11:2012

[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 annex to this certificate.

[11] This EU-Type-Examination Certificate relates only to the design, examination and tests of specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

[12] The marking of the equipment shall include the following:



II 2G Ex ib IIC T4

Kaufbeuren, 2017-03-17

Andreas Aufmuth
Certification body

Horst Haug
ATEX department

EU-type-examination Certificates without signation and stamp shall not be valid.
EU-type-examination Certificates may only be reproduced in entirety and without change.
Extracts or alternations are subject to the Primara Test- und Zertifizier- GmbH.

[13] Annex

[14] EU-Type-Examination Certificate ZELM 07 ATEX 0355 X (internal No. PTZ 17 ATEX 0004 X)

[15] Description of the equipment:

The two-channel-FFT-Data Collector and Signal Analyser VIBXPART Type VIB 5.300 EX – xx serves as hand-guided portable equipment for the preventive maintenance of machines in hazardous locations. The measured values and their parameters are showed on a LCD display. They can be transmitted via Digital connection (RS-232), USB or Ethernet to a computer for storage and processing. The power supply of the device occurs through a built-in rechargeable battery. An optional a leather belt belong to the certification volume. The permissible ambient temperature range is -10°C to +60°C.

[16] Technical data:

Analog output circuits
(Channel A and B connector,
ODU-connector, 7-pol,
BG0, 155° coding)

type of protection Intrinsic Safety: Ex ib IIC
maximum values per circuit:

$$U_o = 28 \text{ V}$$

$$I_o = 63 \text{ mA}$$

$$P_o = 300 \text{ mW}$$

Linear characteristic:

max. permissible external capacitance
max. permissible external inductance
effective internal capacitance
effective internal inductance

$$C_o = 83 \text{ nF}$$

$$L_o = 7 \text{ mH}$$

$$C_i = 54 \text{ nF}$$

$$L_i = 300 \text{ } \mu\text{H}$$

or

to the connection of sensors of the series VIB 6.1***DEX with the EC-Type Examination Certificate TÜV 02 ATEX 1865 including associated 1. Supplement and using of the connecting cable type VIB 5.437-2,9

Temperature sensor circuit
(NiCrNi connector, QLA connector)

type of protection Intrinsic Safety: Ex ib IIC
maximum values:

$$U_o = 6 \text{ V}$$

$$I_o = 6 \text{ mA}$$

$$P_o = 8 \text{ mW}$$

Linear characteristic:

max. permissible external capacitance
max. permissible external inductance

$$C_o = 40 \text{ } \mu\text{F}$$

$$L_o = 800 \text{ mH}$$

Digital output circuit
(Digital connector, ODU-connector,
7-pol, BG0, 90° coding)

type of protection Intrinsic Safety: Ex ib IIC
maximum values:

$$U_o = 12 \text{ V}$$

$$I_o = 188 \text{ mA}$$

$$P_o = 600 \text{ mW}$$

Linear characteristic:

max. permissible external capacitance
max. permissible external inductance

$$C_o = 1,41 \mu\text{F}$$

$$L_o = 0,8 \text{ mH}$$

resp.

to the connection to a commercial digital evaluation device (e.g. personal computer) with $U_m = 6 \text{ V}$ or interconnection of the associated terminal adaptor VIB 5.330 UNV

LAN/USB- circuit
(LAN/USB-connector, ODU-connector,
10-pol, BG1, 155° coding)

to the connection to a commercial digital evaluation device (e.g. personal computer) with $U_m = 6 \text{ V}$ or interconnection of the associated terminal adaptor VIB 5.330 UNV

Battery charge circuit
(ODU-connector, 2-pol, BG0,
30° coding)

only to the connection to a corresponding power supply unit Type VIB 5.322 and only outside of the hazardous locations
 $U_m = 12 \text{ V}$, $I_{\max} = 2 \text{ A}$

[17] Test report no.:
ZELM Ex 0820717548, ZELM Ex 1180817625 and ZELM Ex 10415131114

[18] Special conditions:

1. The intern battery may only be changed by the manufacturer.
2. Battery charging may occur only outside of hazardous locations by using corresponding power supply unit.
3. Connection of a commercial digital evaluation device (e.g. personal computer) to an interface intended for this purpose may occur only outside of hazardous locations.

[19] Essential Health and Safety Requirements:
Covered by the standards.

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