



[1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**

[2] Equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU09ATEX1095 X** | Issue 1

[4] Product: **Process Monitor 420<sup>ex</sup>**  
Type: 17-71MM - 1\*\*\*/\*

[5] Manufacturer: BARTEC GmbH

[6] Address: Max-Eyth-Straße 16  
97980 Bad Mergentheim  
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-16-3-194.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:  
**EN 60079-0:2012+A11:2013 EN 60079-11:2012**  
except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.

[11] This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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

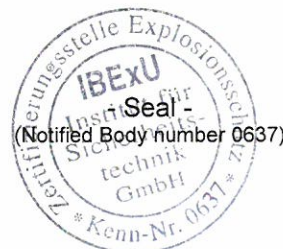
II 2(1)G Ex ib [ia] IIC T5 or  
 II 2(1)G Ex ib [ia Ga] IIC T5 Gb  
-20 °C ≤ T<sub>a</sub> ≤ +60 °C

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By order

Dipl.-Ing. Willamowski



Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2016-10-04

[13] **Schedule**

[14] **Certificate number IBExU09ATEX1095 X | Issue 1**

[15] **Description of product**

The Process Monitor 420<sup>ex</sup> consists of a console panel enclosure with display and a membrane keyboard. The monitor is supplied by an intrinsically safe 4-20 mA current loop. In addition, it can be provided with LCD backlight. The lighting is supplied by a additionally intrinsically safe circuit.

Technical data Type 1 7-7 1 MM – 1 0 0 2 / \* \* \* \* without LCD backlight  
1 7-7 1 MM – 1 0 0 3 / \* \* \* \* with LCD backlight

Ambient temperature range: -20 °C to +60 °C

Measuring circuit (4 - 20 mA): in type of protection Ex ia IIC  
Terminal: X2-1, X2-3  $U_i \leq 30 \text{ V DC}$   
 $I_i \leq 100 \text{ mA}$   
 $L_i \leq \text{negligible}$   
 $C_i \leq 12 \text{ nF}$

Lighting circuit: in type of protection Ex ib IIC  
Terminal: X1-1, X1-2  $U_i \leq 10 \text{ V DC}$   
 $I_i \leq 125 \text{ mA}$   
 $P_i \leq 313 \text{ mW}$   
 $L_i \leq \text{negligible}$   
 $C_i \leq 1 \text{ nF}$

The intrinsically safe circuits are safely electrically isolated up to a peak value of 90 V.  
The standards have been updated in line with the previous edition of the certificates.

[16] **Test report**

The test results are recorded in the test report IB-16-3-194 of 04 October 2016.  
The test documents are part of the test report and they are listed there.

*Summary of the test results*

The Process monitor 420<sup>ex</sup> fulfils the requirements of the explosion protection of the equipment group II and category 2(1)G for explosive gas atmospheres of the explosion group IIC in type of protection Intrinsic safety. It can be connected to circuits inside areas where equipment of category 1 is required.

[17] **Specific conditions of use**

The equipment has to be marked with warning according to EN 60079-0, chapter 29.12 g).  
It shall be mounted in a metallic grounded surrounding. In addition the measuring circuit must be connected with  $< 10^6 \Omega$  to the earth ground.

[18] **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: - none -

[19] **Drawings and Documents**

The documents are listed in the test report.

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