

[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 **IBExU18ATEX1069** | Issue 1

[4] Product: **Humidity Probe**
Types: FMS410D-C, FMS410D-K, FMS410D-T and FMS410D-S

[5] Manufacturer: **Mütec Instruments GmbH**

[6] Address: **Bei den Kämpfen 26
21220 Seevetal
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-18-3-0123/2.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013 EN 60079-31:2014
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:

Humidity Probes FMS410D-C and FMS410D-K

II 1D Ex ta IIIC T135 °C Da
0 °C ≤ T_a ≤ +70 °C

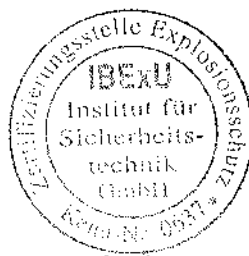
Humidity Probes FMS410D-T and FMS410D-S

II 1D Ex ta IIIC T150 °C Da
0 °C ≤ T_a ≤ +80 °C

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order

Dipl.-Ing. Willamowski



- Seal -

(notified body number 0637)

Tel: + 49 (0) 37 31 / 38 05 0
Fax: + 49 (0) 37 31 / 38 05 10

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, 2018-12-07

[13] Schedule**[14] Certificate number IBExU18ATEX1069 | Issue 1****[15] Description of product**

The Probes serve for the relative humidity measurement in bulk materials and solids and operate on a capacitive measuring principle. They consist of a metal enclosure with an inner casing with integrated orifice plate made of plastic or with a ceramic reinforcement. The Probes in type of protection "protection by enclosure" can be installed in hazardous of zone 20. The connecting cable is permanently attached. The entire electronics inside the enclosure is encapsulated.

Types

Humidity Probe FMS410D-K	Sensor in POM enclosure with orifice plate made of plastic
Humidity Probe FMS410D-C	Sensor in POM enclosure with orifice plate made of ceramic
Humidity Probe FMS410D-T	Sensor in Teflon enclosure with orifice plate made of plastic
Humidity Probe FMS410D-S	Sensor in Teflon enclosure with orifice plate made of ceramic

Technical parameters*Probe in POM enclosure (-K and -C)*

Ambient temperature range (enclosure)	0 °C up to + 70 °C
Process temperature range (orifice plate)	0 °C up to + 70 °C

Probe in Teflon enclosure (-T and -S)

Ambient temperature range (enclosure)	0 °C up to + 80 °C
Process temperature range (orifice plate)	0 °C up to + 90 °C

Rated voltage	< 20 VDC
Rated current	< 50 mA
Interface	RS485

[16] Test report

The test results are recorded in the confidential test report IB-18-3-0123/2 of 7 December 2018. The test documents are part of the test report and they are listed there.

Summary of the test results

The Humidity Probe meets the requirements of type of protection "protection by enclosure 't'", Category 1D and Explosion Group IIIC.

[17] Specific conditions of use

None

[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.

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order


Dipl.-Ing. Willamowski

Freiberg, 2018-12-07