



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BVS 16.0079X**

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Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2020-10-02)

Issue 1 (2018-07-26)

Issue 0 (2016-11-21)

Date of Issue: 2021-03-30

Applicant: **HAMILTON Bonaduz AG**
Via Crusch 8
7402 Bonaduz
Switzerland

Equipment: **MEMOSENS Sensors**

Optional accessory:

Type of Protection: **Intrinsic Safety "i"**

Marking: **Ex ia IIC T3/T4/T6 Ga**

Approved for issue on behalf of the IECEx
Certification Body:

Dr Franz Eickhoff

Position:

Lead Auditor and officially recognised expert

Signature:
(for printed version)

Date:

[Signature]
2021-03-30

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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Manufacturer: **HAMILTON Bonaduz AG**
Via Crusch 8
7402 Bonaduz
Switzerland

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DE/BVS/ExTR16.0079/03](#)

Quality Assessment Report:

[DE/TUR/QAR12.0005/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The MEMOSENS Sensors are used in connection with a MEMOSENS measuring cable type 355350, type 355351 or type 355352 (IECEX BVS 17.0090X) or an in hardware and function identical and certified measuring cable to measure parameters in fluid media.

The connection between sensor and measuring cable is galvanically isolated via a completely isolated connection system (inductive coupling).

The sensor's electronic circuit is completely encapsulated.

Listing of all components used referring to older standards

See Annex

Subject and Type

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The MEMOSENS sensors may be used in the following ambient temperature range:
See thermal ratings.
2. The MEMOSENS sensors may not be operated in electrostatically critical processing conditions.
Intense vapour or dust flows directly impacting on the connection system must be avoided.
3. The metallic parts of the sensor type OxyFerm *** MS *** have to be mounted at the mounting location electrostatically conductive ($< 1 \text{ M}\Omega$).



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Equipment (continued):

Ratings:

The MEMOSENS Sensors may be connected to the MEMOSENS measuring cable

type **355350**, type **355351** or type **355352** (IECEx BVS 17.0090X) or an in hardware and function identical and certified MEMOSENS measuring cable.

Thermal ratings:

Ambient temperature range

| | | | |
|-------------------|------------------|------------|--|
| Temperature class | EasyFerm Plus | *** MS *** | |
| | Polilyte Plus | *** MS *** | |
| | Polilyte Plus XP | *** MS *** | |
| | Polilyte HT | *** MS *** | |
| | EasyFerm Bio | *** MS *** | |
| | MecoTrode | *** MS *** | |
| | MecoTrode Flat | *** MS *** | |
| | ChemoTrode | *** MS *** | |
| | ChemoTrode P | *** MS *** | |
| | FermoTrode | *** MS *** | |
| | EasyFerm USD | *** MS *** | |
| | OxyFerm | *** MS *** | |

| | | |
|----|--|--|
| T3 | $0\text{ }^{\circ}\text{C} \leq T_a \leq +130\text{ }^{\circ}\text{C}$ | $0\text{ }^{\circ}\text{C} \leq T_a \leq +130\text{ }^{\circ}\text{C}$ |
| T4 | $0\text{ }^{\circ}\text{C} \leq T_a \leq +120\text{ }^{\circ}\text{C}$ | $0\text{ }^{\circ}\text{C} \leq T_a \leq +120\text{ }^{\circ}\text{C}$ |
| T6 | $0\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$ | $0\text{ }^{\circ}\text{C} \leq T_a \leq +45\text{ }^{\circ}\text{C}$ |



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

The MEMOSENS sensor type EasyFerm USD *** MS *** was added.

Annex:

[BVS_16_0079x_Hamilton_Annex_Issue3.pdf](#)



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Annex

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Listing of all components used referring to older standards

| Subject and type | Certificate | Standards |
|--|--------------------|--|
| MEMOSENS sensor component parts sets type 71076376, type 71266569, type 71099249 | IECEx BVS 15.0032U | IEC 60079-0:2011 Edition 6.0 ⁽¹⁾ IEC 60079-11:2011 Edition 6.0 |

¹ No applicable technical differences

Subject and Type:

MEMOSENS sensor type

EasyFerm Plus
Polilyte Plus
Polilyte Plus XP
Polilyte HT
EasyFerm Bio
MecoTrode
MecoTrode Flat
ChemoTrode
ChemoTrode P
FermoTrode
EasyFerm USD

*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***
*** MS ***

Shaft length in mm (50 - 600 mm)

Used glass, non-ex-relevant,
up to 3 letters or none

The differences between the
sensors are not Ex-relevant.

OxyFerm

*** MS ***

Shaft length in mm (50 - 950 mm)

Sensor cap, non ex-relevant