IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEx BVS 17.0090X	issue No.:0	Certificate history:
Status:	**Current**		
Date of Issue:	**2018-02-07**	Page 1 of 3	

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

Equipment: **MEMOSENS measuring cable type 355350 (cable length 3 m), 355351 (cable length 5 m), 355352 (cable length 10 m)**

Optional accessory:

Type of Protection: **Equipment protection by 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: Deputy Head of Certification Body

Signature:
(for printed version)

Date: 2018-02-07

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 the Official IECEx Website.

Certificate issued by:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

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Certificate No.: IECEx BVS 17.0090X

Date of Issue: **2018-02-07** Issue No.: **0**

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

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical 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/ExTR18.0010/00

Quality Assessment Report:

DE/TUR/QAR12.0005/01

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

General product information:

The MEMOSENS measuring cable type 355350, type 355351 or type 355352 is used in connection with a IECEx certified intrinsically safe MEMOSENS sensor to measure different parameters of fluid media.
The connection between measuring cable and sensor is galvanically isolated via a completely isolated connection system (inductive coupling).
The measuring cable's electronic circuit is completely encapsulated.

Ratings:

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

1 The measuring cable type 355350, type 355351 or type 355352 may be used in the following ambient temperature range:
Temperature class and ambient temperature range – see ratings.
2 The measuring cables type 355350, type 355351 or type 355352 may not be operated in electrostatically critical processing conditions. Intense vapour or dust flows directly impacting on the connection system must be avoided.

Annex: BVS_17_0090x_Hamilton_Annex.pdf

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Certificate No.: **IECEx BVS 17.0090X**
Annex

Ratings:

The connection of the MEMOSENS measuring cable with sensor to an intrinsically safe output circuit (Ex ia IIC) with the following maximum values is possible:

Maximum output voltage	U_o	DC	5.1 V
Maximum output current	I_o		130 mA
Maximum output power (linear output characteristic)	P_o		166 mW

The maximum internal capacity and inductivity of the intrinsically safe output circuit may not exceed the following maximum values:

Maximum internal capacity	C_i	15 µF
Maximum internal inductivity	L_i	95 µH

Alternative:

Maximum output voltage	U_o	DC	5.04 V
Maximum output current	I_o		80 mA
Maximum output power (trapezoid output characteristic)	P_o		112 mW

The maximum internal capacity and inductivity of the intrinsically safe output circuit may not exceed the following maximum values:

Maximum internal capacity	C_i	14.1 µF
Maximum internal inductivity	L_i	237.2 µH

The maximum permitted cable length between sensor and transmitter is 100 m.

Ambient temperature range depends on temperature class:

Temperature class	Ambient temperature range
T3	$-15\ °C \le T_a \le +135\ °C$
T4	$-15\ °C \le T_a \le +120\ °C$
T6	$-15\ °C \le T_a \le +70\ °C$