

EU-Type Examination Certificate

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 17 ATEX E 107 X**

Product: **MEMOSENS measuring cable type CYK10-E***+***

Manufacturer: **Endress+Hauser Analytical Instruments (Suzhou) Co., Ltd.**

Address: **No. 31 Jiang Tian Li Road, Suzhou Industrial Park 215126,
JiangSu Province, China**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA EXAM GmbH, Notified Body number 0158, 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 Report No. BVS PP 18.2074 EU.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

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.

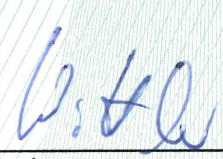
The marking of the product shall include the following:

 **II 1G Ex ia IIC T3/T4/T6 Ga**

DEKRA EXAM GmbH
Bochum, 2018-05-22



Certifier



Approver

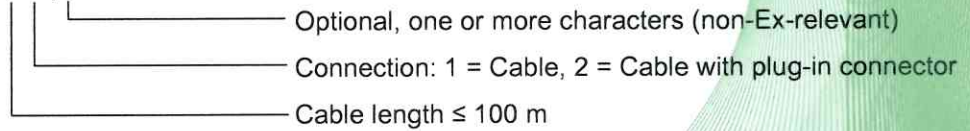
13 **Appendix**
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15 **Product description**

15.1 **Subject and type**

MEMOSENS measuring cable

type CYK10- E * +***



15.2 **Description**

The MEMOSENS measuring cable type CYK10-E***+* is used in connection with a 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.

15.3 **Parameters**

The MEMOSENS measuring cable type **CYK10-E***+*** with MEMOSENS sensors, may be connected to the intrinsically safe sensor output circuit for digital sensors pH/redox and temperature of the field measuring device MYCOM-S of type CPM 153-G5..... (1 sensor output circuit) or of the field measuring device MYCOM-S of type CPM 153-G6..... (2 sensor output circuits) (DMT 01 ATEX E 174) as well as to the sensor module FSDG1 of the field measuring device type Liquiline M CM42-..... (TÜV SÜD – EX5 05 03 30266 012, TÜV Rheinland - TÜV 13 ATEX 7459 X) as well as to the Memosens/USB interface converter type MemoLink (BVS 12 ATEX E 079 X).

Furthermore, 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	μ F
Maximum internal inductivity	L_i		95	μ H

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	μ F
Maximum internal inductivity	L_i		237.2	μ H

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

Ambient temperature range depend on temperature class:

Temperature class	Ambient temperature range
T3	$-15\text{ °C} \leq T_a \leq +135\text{ °C}$
T4	$-15\text{ °C} \leq T_a \leq +120\text{ °C}$
T6	$-15\text{ °C} \leq T_a \leq +70\text{ °C}$

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17 Special Conditions for Use

17.1 The measuring cable type CYK10-E***+* may be used in the following ambient temperature range: Temperature class and ambient temperature range – see 15.3 parameters.

17.2 The measuring cable type CYK10-E***+* may not be operated in electrostatically critical processing conditions. Intense vapour or dust flows directly impacting on the connection system must be avoided.

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential report.