



EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert NO.GYJ14.1156X

This is to certify that the product

Memosens pH/ORP sensor

manufactured by Endress+Hauser Conducta GmbH+Co. KG

(Address: Dieselstraße 24, 70839 Gerlingen, Germany)

which model is CPSaaD-b cc d eG

Ex marking Ex ia II C T3/T4/T6 Ga

product standard /

drawing number 133956-Z0415-2G、133962-Z0415-3E

has been inspected and certified by NEPSI, and that it conforms
to GB 3836.1-2010,GB 3836.4-2010,GB 3836.20-2010

This Approval shall remain in force until 2019.05.06

Remarks

- 1.Conditions for safe use are specified in the attachment to this certificate.
- 2.Symbol "X" placed after the certification number denotes specific conditions of use, which are specified in the attachment to this certificate.
- 3.Model designation is specified in the attachment to this certificate.
- 4.[Variation I]: Manufacturer's name is changed; Add additional manufacturer location. Issued on 2016.06.17.
- 5.This certificate is also applicable for the product with the same type manufactured by Endress+Hauser Analytical Instruments (Suzhou) Co., Ltd. (address: Su Hong Zhong Lu No.491, Suzhou-SIP, China)

Director

National Supervision and Inspection Centre for
Explosion Protection and Safety of Instrumentation

Issued Date 2014.05.07

This Certificate is valid for products compatible with the documents and samples approved by NEPSI.

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防爆合格证

证号: GYJ14.1156X

由 恩德斯+豪斯公司

制造的产品:

(地址: Dieselstraße 24, 70839 Gerlingen, Germany)

名 称 Memosens pH/ORP传感器

型号规格 CPSaaD-b cc d eG

防爆标志 Ex ia II C T3/T4/T6 Ga

产品标准 /

图样编号 133956-Z0415-2G、133962-Z0415-3E

经图样及技术文件的审查和样品检验, 确认上述产品符合 GB 3836.1-2010、GB 3836.4-2010、GB 3836.20-2010 标准, 特颁发此证。

本证书有效期: 2014年5月7日至2019年5月6日

- 备注
1. 安全使用注意事项见本证书附件。
 2. 证书编号后缀“X”表明产品具有安全使用特殊条件, 内容见本证书附件。
 3. 型号规格说明见本证书附件。
 4. [更改1]: 单位名称更改; 制造地扩展。2016年6月17日签发。
 5. 本证书同时适用于恩德斯豪斯分析仪器(苏州)有限公司(地址: 苏州工业园区苏虹中路491号)生产的同型号产品。

站长

国家级仪器仪表防爆安全监督检验站

颁发日期二〇一四年五月七日

本证书仅对与认可文件和样品一致的产品有效。

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国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for
Explosion Protection and Safety of Instrumentation

(GYJ14.1156X)

(Attachment II)

Attachment II to GYJ14.1156X

(translation)

1. Description

Memosens pH/ORP sensor type CPS^{aa}D-^b^{cc}^d^eG, manufactured by Endress+Hauser Conducta GmbH+Co. KG, has been certified by National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI). This product accords with following standards:

GB3836.1-2010 Explosive atmospheres-Part 1: Equipment-General requirements

GB3836.4-2010 Explosive atmospheres-Part 4: Equipment protection by intrinsic safety "i"

GB3836.20-2010 Explosive atmospheres-Part 20: Equipment with equipment protection level (EPL) Ga

The Ex marking is Ex ia II C T3/T4/T6 Ga (details see table below), its certificate number is GYJ14.1156X.

Type approved in this certificate is:

pH/ORP sensor:

CPS^{aa}D-^b^{cc}^d^eG

Note: ^{aa} indicates type, including 11, 12, 16, 41, 42, 71, 72, 76, 91, 92 or 96;

^b indicates version, including 7 (basic version) or 8 (SIL version only for type CPS11D, CPS71D, CPS91D);

^{cc} indicates application specified version (non Ex-relevant);

^d indicates shaft length (120mm up to 425mm, non Ex-relevant);

^e indicates electrolyte supply (only for type CPS4*D, non Ex-relevant).

CPS171D-NA7^a^{bb}^c

Note: ^a indicates application specified version (non Ex-relevant);

^{bb} indicates reference system (non Ex-relevant);

^c indicates shaft length (≤ 600 mm, non Ex-relevant).

Measuring cable:

CYK10-^a^{bb}^c

Note: ^a indicates Ex approval, including G, I, E or J;

^{bb} indicates cable length ($L \leq 100$ m);

^c indicates connection, including 1 (cable) or 2 (cable with plug-in connector).

CYK20-^{**}^{aa}^{bb} (for laboratory use)

Note: ^{**} have no Ex-relevance;

^{aa} indicates cable length, including B1 (1.5m) or B2 (3m);

^{bb} indicates connection, including C1 (cable with plug-in connector M12)

C2 (cable with plug-in connector M8).

Refer to the instruction manual for the details.

2. Special Conditions for Safe Use

The suffix "X" placed after the certificate indicates that the product is subject to special conditions for safe use specified as follows:

- 2.1 The measuring cable and its connecting head must be protected from electrostatic charging, if installed through areas of EPL Ga.
- 2.2 The 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. Conditions for Safe Use

3.1 The relationship between model type, marking, ambient temperature and the temperature class is shown as following:

Type	Designation	Marking	Ambient temperature range
CYK10-****	Measuring cable	Ex ia II C T3/T4/T6 Ga	-15°C ~ +135°C (T3) -15°C ~ +120°C (T4) -15°C ~ +70°C (T6)
CYK20-*****	Measuring cable	Ex ia II C T6 Ga	-10°C ~ +50°C (T6)
CPS11D-****G CPS12D-****G CPS16D-****G	Orbisint	Ex ia II C T3/T4/T6 Ga	-15°C ~ +135°C (T3) -15°C ~ +120°C (T4) -15°C ~ +70°C (T6)
CPS41D-****G CPS42D-****G	Ceraliquid	Ex ia II C T3/T4/T6 Ga	-15°C ~ +135°C (T3) -15°C ~ +120°C (T4) -15°C ~ +70°C (T6)
CPS71D-****G CPS76D-****G	Ceragel	Ex ia II C T3/T4/T6 Ga	0°C ~ +135°C (T3) 0°C ~ +120°C (T4) 0°C ~ +70°C (T6)
CPS72D-****G	Ceragel	Ex ia II C T3/T4/T6 Ga	-15°C ~ +135°C (T3) -15°C ~ +120°C (T4) -15°C ~ +70°C (T6)
CPS91D-****G CPS92D-****G CPS96D-****G	Orbipore	Ex ia II C T4/T6 Ga	0°C ~ +110°C (T4) 0°C ~ +70°C (T6)
CPS171D-NA7****	pH sensor	Ex ia II C T3/T4/T6 Ga	0°C ~ +135°C (T3) 0°C ~ +120°C (T4) 0°C ~ +70°C (T6)

3.2 The sensors, in connection with the measuring cable type CYK10 or CYK20 may be connected to field measuring instrument type Liquiline M CM42 (terminals: 187, 188, 197 and 198), with certificate no. GYJ14.1095; furthermore, the sensors with measuring cable can be connected to the intrinsically safe output circuit (Ex ia II C) with the following maximum values:

$U_o=5.1V$ $I_o=130mA$ $P_o=166mW$ $C_i=15\mu F$ $L_i=95\mu H$
or $U_o=5.04V$ $I_o=80mA$ $P_o=112mW$ $C_i=14.1\mu F$ $L_i=237.2\mu H$

3.3 The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment. Any change may impair safety.

3.4 For installation, use and maintenance of the product, the end user shall observe the instruction manual and the following standards:

GB50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

GB3836.13-2013 "Explosive atmospheres- Part 13:Equipment repair, overhaul and reclamation".

GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres- Part 15:Electrical installations in hazardous area (other than mines)".

GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres- Part 16:Inspection and maintenance of electrical installation (other than mines)".


GB3836.18-2010 "Explosive atmospheres-Part 18: Intrinsically safe system".

4. Manufacturer's Responsibility

4.1 Conditions for safe use, as specified above, should be included in the documentation the user is provided with.

4.2 Manufacturing should be done according to the documentation approved by NEPSI.

4.3 Marking should show the following

4.3.1 NEPSI logo 

4.3.2 Type of explosion protection

4.3.3 Certificate number

4.3.4 Ambient temperature range

4.3.5 Intrinsically safe parameters

National Supervision and Inspection Center
for Explosion Protection and Safety of Instrumentation

2018.06.17

Note: This attachment is the amendment to the attachment I issued on 2014.05.07.