



# 防爆合格证

证号: GYJ18.1322X

由 恩德斯+豪斯公司

制造的产品:

(地址: Dieselstraße 24, 70839 Gerlingen, Germany)

名称 电导率传感器

型号规格 CLS 系列

防爆标志 Ex ia IIC T2 ~ T6 Ga

产品标准 /

图样编号 136524-3A, 136535-3A, 136536-0000-3B, 136537-3A,  
136538-3

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: 2018年7月6日至2023年7月5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. 本安电气参数见本证书附件。

站长

国家级仪器仪表防爆安全监督检验站  
颁发日期二〇一八年七月六日

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

(GYJ18.1322X)

(Attachment I)

## GYJ18.1322X防爆合格证附件 I

由恩德斯+豪斯公司生产的CLS系列电导率传感器，经国家级仪器仪表防爆安全监督检验站(NEPSI)检验，符合下列标准：

GB3836.1-2010 爆炸性环境 第1部分：设备 通用要求

GB3836.4-2010 爆炸性环境 第4部分：由本质安全型“i”保护的的设备

GB3836.20-2010 爆炸性环境 第20部分：设备保护级别（EPL）为Ga级的设备  
产品防爆标志Ex ia II C T2~T6 Ga，防爆合格证号GYJ18.1322X。

本证书认可的型号规格如下：

Condumax W CLS12-□□□□

Condumax W CLS13-□□□□

Condumax W CLS15-□□□□

Condumax H CLS16-□□□□

Condumax W CLS21-□□□□

其中，□代表测量范围（与防爆性能无关）

□代表过程连接/材料（与防爆性能无关）

□代表连接电缆：1, 4, 5=不带永久电缆；2=带5m永久电缆；3=带10m永久电缆

□代表温度传感器：D=不带温度传感器；A=Pt100；B=Pt1000

详见产品使用说明书。

### 一、产品安全使用特殊条件

产品防爆合格证号后缀“X”表示产品有安全使用特殊要求，具体内容如下：

对于传感器CLS21，测量介质的最小传导率为10nS/cm，以避免产生静电火花危险。

### 二、产品使用注意事项

1、产品型号、使用环境温度和温度组别的关系如下：

产品型号	环境温度	温度组别
CLS12-□□□□D	-20℃~+160℃	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS12-□□□□A	-20℃~+160℃	T3
	-20℃~+125℃	T4
	-20℃~+75℃	T6

续上表:

CLS13-□□□D	-20℃~+250℃	T2
	-20℃~+195℃	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS13-□□□A	-20℃~+250℃	T2
	-20℃~+190℃	T3
	-20℃~+125℃	T4
	-20℃~+75℃	T6
CLS15-□□□D	-20℃~+150℃*	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS15-□□□A	-20℃~+150℃*	T3
	-20℃~+115℃	T4
	-20℃~+65℃	T6
CLS16-□□□D	-5℃~+130℃	T4
	-5℃~+80℃	T6
CLS16-□□□A	-5℃~+150℃*	T3
	-5℃~+120℃	T4
	-5℃~+70℃	T6
CLS16-□□□B	-5℃~+150℃*	T3
	-5℃~+115℃	T4
	-5℃~+65℃	T6
CLS21-□□□D	-20℃~+150℃	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS21-□□□A	-20℃~+150℃	T3
	-20℃~+115℃	T4
	-20℃~+65℃	T6

注\*: 150℃情况下最多工作1小时

2、产品必须与已通过防爆认证的关联设备配套共同组成本安防爆系统方可使用于爆炸性气体环境，本安输入参数如下：

$$U_i=15.0V \quad I_i=30mA \quad P_i=130mW \quad C_i=0 \quad L_i=0$$

3、用户不得自行随意更换该产品的电气零部件，应会同产品制造商共同解决运行中出现的故障，以免影响防爆性能和损坏现象的发生。

4、产品的安装、使用和维护应同时遵守产品使用说明书、GB 3836.13-2013“爆炸性环境 第13部分：设备的修理、检修、修复和改造”、GB/T 3836.15-2017“爆炸性环境 第15部分：电气装置的设计、选型和安装”、GB/T 3836.16-2017“爆炸性环境 第16部分：电气



装置的检查与维护”、GB/T 3836.18-2017“爆炸性环境 第18部分：本质安全电气系统”及GB 50257-2014“电气设备安装工程爆炸和火灾危险环境电气装置施工及验收规范”的有关规定。

### 三、制造厂责任

- 1、产品制造厂必须将上述使用注意事项纳入产品使用说明书；
- 2、制造厂必须严格按照NEPSI认可的文件资料生产；
- 3、产品铭牌中应至少包括下列内容：
  - a) NEPSI认可标志（见防爆合格证书）
  - b) 产品防爆标志
  - c) 防爆合格证号
  - d) 使用环境温度
  - e) 本安参数说明

国家级仪器仪表防爆安全监督检验站  
二〇一八年七月六日







# EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert NO.GYJ18.1322X

This is to certify that the product

**Conductivity sensor**

manufactured by **Endress+Hauser Conducta GmbH+Co. KG**

(Address: Dieselstraße 24, 70839 Gerlingen, Germany)

which model is **CLS Series**

Ex marking **Ex iaIIC T2 ~ T6 Ga**

product standard /

drawing number **136524-3A, 136535-3A, 136536-0000-3B, 136537-3A,  
136538-3**

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 **2023.07.05**

- Remarks**
1. Conditions for safe use are specified in the attachment(s) 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(s) to this certificate.
  4. Intrinsic safety parameters specified in the attachment(s) to this certificate.

**Director**

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

Issued Date **2018.07.06**



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

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(Attachment I)

## Attachment I to GYJ18.1322X (translation)

### 1. Description

CLS Series Conductivity Sensors, 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 T2~T6 Ga, its certificate number is GYJ18.1322X.

Type approved in this certificate is:

Condumax W CLS12-■■■■

Condumax W CLS13-■■■■

Condumax W CLS15-■■■■

Condumax H CLS16-■■■■

Condumax W CLS21-■■■■

Note: ■ indicates measuring range and cell constant (not Ex-relevant);

■ indicates process connection / material (not Ex-relevant);

■ indicates cable connection: 1, 4, 5 = without fixed cable; 2 = with 5m fixed cable; 3 = with 10m fixed cable

■ indicates temperature sensor: D = without temperature sensor; A = Pt100; B = Pt1000

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:

The sensor type CLS21 is only allowed to be used for measuring liquids having a minimum conductivity of 10nS/cm in order to avoid electrostatic charge.

## 3. Conditions for Safe Use

3.1 The relation between model type, ambient temperature and the temperature class is shown as follows:

model type	ambient temperature	temperature class
CLS12-□□□D	-20℃~+160℃	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS12-□□□A	-20℃~+160℃	T3
	-20℃~+125℃	T4
	-20℃~+75℃	T6
CLS13-□□□D	-20℃~+250℃	T2
	-20℃~+195℃	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS13-□□□A	-20℃~+250℃	T2
	-20℃~+190℃	T3
	-20℃~+125℃	T4
	-20℃~+75℃	T6
CLS15-□□□D	-20℃~+150℃*	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS15-□□□A	-20℃~+150℃*	T3
	-20℃~+115℃	T4
	-20℃~+65℃	T6
CLS16-□□□D	-5℃~+130℃	T4
	-5℃~+80℃	T6
CLS16-□□□A	-5℃~+150℃*	T3
	-5℃~+120℃	T4
	-5℃~+70℃	T6
CLS16-□□□B	-5℃~+150℃*	T3
	-5℃~+115℃	T4
	-5℃~+65℃	T6
CLS21-□□□D	-20℃~+150℃	T3
	-20℃~+130℃	T4
	-20℃~+80℃	T6
CLS21-□□□A	-20℃~+150℃	T3
	-20℃~+115℃	T4
	-20℃~+65℃	T6

Note \*: the temperature 150℃ is only admissible for a maximum period of 1 hour.



3.2 This product should be used in explosive gas atmospheres together with approved associated apparatus, the connecting parameters is shown as following:

$U_i=15.0V$   $I_i=30mA$   $P_i=130mW$   $C_i=0$   $L_i=0$

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:

GB 50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

GB 3836.13-2013 "Explosive atmospheres- Part 13:Equipment repair, overhaul and reclamation".

GB/T 3836.15-2017 "Explosive atmospheres- Part 15:Electrical installations design, selection and erection".

GB/T 3836.16-2017 "Explosive atmospheres- Part 16:Electrical installations inspection and maintenance".


GB/T 3836.18-2017 "Explosive atmospheres-Part 18: Intrinsically safe electrical systems".

#### 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

In case the nameplate does not provide enough space, information can be given in the manual, provided the nameplate shows a link to the appropriate documentation.

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

2018.07.06