



# 中国国家强制性产品认证证书

证书编号: 2021332315000690 附页 共 2 页 第 1 页

## 一. 本证书产品信息如下:

Temperature Sensors, LEX30, Ex d IIC T6...T1/Gb,

(1) LEX30 型温度传感器可由不同类型和安装方式的传感器, 插入件, 插入件螺纹引入装置组成。端接, 连接头, 直接引入电缆连接, 电缆传感器和陶瓷插入件为可选装组件。

传感器由封闭的金属管或矿物质绝缘的金属护套电缆保护, 可选择不同长度和直径。传感器插入件可以是单个或多个热电偶, 如 PTC, NTC (如 KTY), 或电阻传感器 (RTD)。

应使用已经认证, 防爆型式为隔爆型“d”的连接头。连接头/接线盒内提供接线端子或带有显示器或不带显示功能的工业变送器。

(2) 额定电压: 最大 50Vdc; 额定电流: 最大 10mA。

(3) 环境温度: 最大环境温度范围: -45℃至+80℃。此温度范围可被使用的材质 (如电缆, 连接头, 接线盒) 或使用的温度变送器限制。

整机的环境温度范围, 连接头/接线盒、过渡部件和电缆的工作温度范围取决于下表中列出的电缆绝缘材料。

电缆绝缘	电缆工作温度范围	端部封装、过渡部件和引入格兰允许温度范围	连接头/接线盒最大工作温度范围
PVC	-25℃/+105℃	-40℃/+105℃	-40℃/+100℃
硅	-25℃/+160℃	-40℃/+230℃	-40℃/+100℃
PTFE	-45℃/+200℃	-45℃/+230℃	-45℃/+100℃

可在允许温度范围内其他绝缘材料的电缆, 例如 kapton 和/或额外玻璃纤维和/或金属编织物/护套。

在当使用变送器时, 最高使用温度应比变送器的最高允许环境温度低至少 10K。最低工作温度由变送器的最低环境温度限制。选装已经认证的 Ex d 型接头/接线盒的工作温度范围可以不同, 具体取决于用于密封的材料等条件, 最低温度为-50℃, 最高温度为+200℃。



签 发:



中创新海 (天津) 认证服务有限公司



# 中国国家强制性产品认证证书

证书编号: 2021332315000690 附页 共 2 页 第 2 页

工艺过程温度与温度组别或最高使用温度之间的关系如下:

最高工艺过程温度 $T_p$ (°C)	整机温度组别/最高工作温度 (°C)
75	T6
90	T5
125	T4
190	T3
285	T2
435	T1

(4) 外壳防护等级: IP65。

## 二. 特殊使用说明:

1. 如果矿物绝缘的金属铠装传感器电缆的标称尖端直径小于 3mm, 则必须考虑将传感器接地。必须假定它不能通过 IEC 60079-14 要求的 500 Vac 或 700 Vdc 绝缘强度测试。此外, 必须保护传感器免受机械冲击。有关更多信息, 请参见安装说明。
2. 如果实际应用需要对组件的使用温度进行详细评估 (例如, 由于较高的工艺过程温度以及绝热), 则应进行温度测量以验证没有超出组件的规定温度极限。
3. 当温度传感器配套陶瓷插入件时, 插入件应完全浸没在液体介质中, 过线浇封部分使用环境温度范围 -40°C 至 +80°C。

## 三. 试验报告: PCEC21601-21100269

## 四. 证书变更信息: 无

以下空白。



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# 中国国家强制性产品认证证书

证书编号: 2021332315000691

## 委托人名称及地址

Thermo-Electra B.V. (荷兰热电)

Weteringweg 10, 2641 KM Pijnacker, the Netherlands (荷兰 鹿特丹 皮纳克 2641 鲁特路 10号)

## 生产者(制造商)名称及地址

Thermo-Electra B.V. (荷兰热电)

Weteringweg 10, 2641 KM Pijnacker, the Netherlands (荷兰 鹿特丹 皮纳克 2641 鲁特路 10号)

## 生产企业名称及地址

Thermo-Electra B.V. (荷兰热电)

Weteringweg 10, 2641 KM Pijnacker, the Netherlands (荷兰 鹿特丹 皮纳克 2641 鲁特路 10号)

## 产品名称、型号及规格、防爆标志

Temperature Sensors

LEX25、Ex ia IIC T6...T1 Ga; Ex ia/ib IIC T6...T1 Ga/Gb; Ex ib IIC T6...T1 Gb

(产品相关信息见附页)

## 产品标准和技术要求

GB 3836.1-2010; GB 3836.4-2010

上述产品符合强制性产品认证实施规则 CNCA-C23-01:2019 的要求, 特发此证。

签发日期: 2021-05-08

有效期至: 2026-05-07

首次发证日期: 2021-05-08

本证书的有效性依赖发证机构的定期监督获得保持。

本证书的相关信息可通过国家认监委网站 [www.cnca.gov.cn](http://www.cnca.gov.cn) 查询。



签 发:

殷红



中创新海(天津)认证服务有限公司





# 中国国家强制性产品认证证书

证书编号: 2021332315000691 附页 共 2 页 第 1 页

## 一. 本证书产品信息如下:

Temperature Sensors, LEX25, Ex ia IIC T6...T1 Ga; Ex ia/ib IIC T6...T1 Ga/Gb; Ex ib IIC T6...T1 Gb,

(1) LEX25 型温度传感器可由不同类型和安装方式的传感器, 插入件, 插入件螺纹引入装置组成。端接, 连接头, 直接引入电缆连接, 电缆传感器和陶瓷插入件为可选装组件。

传感器由封闭的金属管或矿物质绝缘的金属护套电缆保护, 可选择不同长度和直径。传感器插入件可以是单个或多个热电偶, 如 PTC, NTC (如 KTY), 或电阻传感器 (RTD)。

可以使用材质为铝, 铸铁, 不锈钢或非金属的外壳, 以提供最低为 IP65 的防护等级。连接头/接线盒可以配备端子, 也可以配备已进行单独认证、保护型式为 Ex i, 带有或不带有显示屏的变送器。插头和插座可用于 Ex i 传感器电路, 前提是它们与非本安电路分开且不可互换。

(2) 传感器本安参数: max. Ui: 30V, Ii: 75mA, Pi: 500mW, Ci: 0, Li: 0; 与温度传感器配套使用的变送器: max. Pi: 2.25W。

(3) 当温度传感器不使用变送器, 而使用飞线或端子连接时, 防爆等级为“ia”; 当温度传感器使用变送器时, 防爆等级与变送器相同, 如“ia”、“ib”或“ia/ib”。

(4) 环境温度: 最大环境温度范围: -45℃至+80℃。此温度范围可被使用的材质(如电缆, 连接头, 接线盒)或使用的 Ex i 温度变送器限制。

整机的环境温度范围, 连接头/接线盒、过渡部件和电缆的工作温度范围取决于下表中列出的电缆绝缘材料。

电缆绝缘	电缆工作温度范围	端部封装、过渡部件和引入格兰允许温度范围	连接头/接线盒最大工作温度范围
PVC	-25℃/+105℃	-40℃/+105℃	-40℃/+100℃
硅	-25℃/+160℃	-40℃/+230℃	-40℃/+100℃
PTFE	-45℃/+200℃	-45℃/+230℃	-45℃/+100℃

可在允许温度范围内其他绝缘材料的电缆, 例如 kapton 和/或额外玻璃纤维和/或金属编织物/护套。



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证书编号: 2021332315000691 附页 共 2 页 第 2 页

在当使用保护型式为 Ex i 的变送器时, 最高使用温度应比变送器的最高允许环境温度低至少 10K。最低工作温度由变送器的最低环境温度限制。

工艺过程温度与温度组别或最高使用温度之间的关系如下:

最高工艺过程温度 $T_p$ (°C)	整机温度组别/最高工作温度 (°C)
75	T6
90	T5
125	T4
190	T3
285	T2
435	T1

如果使用温度变送器, 温度变送器温度组别也应该被考虑。

(5) 外壳防护等级: IP65。

## 二. 特殊使用说明:

1. 如果矿物绝缘的金属铠装传感器电缆的标称尖端直径小于 3mm, 则必须考虑将传感器接地。必须假定它不能通过 IEC 60079-14 要求的 500 Vac 或 700 Vdc 绝缘强度测试。此外, 必须保护传感器免受机械冲击。有关更多信息, 请参见安装说明。
2. 如果实际应用需要对组件的使用温度进行详细评估 (例如, 由于较高的工艺过程温度以及绝热), 则应进行温度测量以验证没有超出组件的规定温度极限。

三. 试验报告: PCBC21601-21100270

四. 证书变更信息: 无

以下空白。



签 发:



中创新海 (天津) 认证服务有限公司

## Certificate for China Compulsory Product Certification

Certificate No.: 2021332315000690

### Name and Address of the Applicant

Thermo-Electra B.V.  
Weteringweg 10, 2641 KM Pi jnacker, the Netherlands

### Name and Address of the Manufacturer

Thermo-Electra B.V.  
Weteringweg 10, 2641 KM Pi jnacker, the Netherlands

### Name and Address of the Factory

Thermo-Electra B.V.  
Weteringweg 10, 2641 KM Pi jnacker, the Netherlands

### Product Name, Model and Specification, Explosion-proof mark

Temperature Sensors  
LEX30, EX d IIC T6...T1 Gb  
(See the appendix for related product information)

### The Standards and Technical Requirements for the Product

GB 3836.1-2010; GB 3836.2-2010

It is hereby to issue this certificate to certify that the above mentioned product complies with the requirements of implementation rules for compulsory certification CNCA-C23-01:2019.

Date of Issue: May 8, 2021

Valid Till: May 7, 2026

Date of First Issue: May 8, 2021

The validity of this certificate depends on the regular supervision of the issuing authority.

The relevant information of the certificate can be obtained through the Website of the Certification and Accreditation Administration of the P.R.C.: [www.cnca.gov.cn](http://www.cnca.gov.cn).

[PCEC] Signed by: Yin Hong [Seal of Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd.]

### Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd

022-26651066

Address: 85-1 Sanhao Road, Dingzigu, Tianjin

Postal Code: 300131

<http://www.pcec.com.cn>

F 0003441



## Certificate for China Compulsory Product Certification

Certificate No.: 2021332315000690

Appendix

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I. The information of the product mentioned in this certificate is as following:

Temperature Sensors, LEX30, EX d IIC T6...T1 Gb

(1) The LEX30 temperature sensor can be composed of sensors of different types and with different installation methods, inserts and screw thread lead-in device of the inserts. The terminals and connectors are connected directly with the cable. Cable sensors and ceramic inserts are optional components.

The sensor is protected by closed metal tubes or cables with mineral insulated metal sheath, with different lengths and diameters available. The sensor insert can be a single or multiple thermocouples, such as PTC, NTC (such as KTV), or resistance sensor (RTD)

Certified flameproof type (explosion-proof type)"d" connector shall be used. Connecting terminal or industrial transmitters with or without display functions are provided in the connector / junction box.

(2) Rated Voltage: Maximum 50Vdc; Rated Current: Maximum 10mA.

(3) Ambient Temperature: Maximum Ambient Temperature Range: - 45°C to + 80°C. This temperature range can be limited by the material used (such as cable, connector, junction box) or the temperature transmitter used.

The ambient temperature range for the whole device, and the operating temperature range of connectors / junction box, transition parts and cables depend on the cable insulation materials listed in the table below.

Cable insulation	Cable operating temperature range	Allowable temperature range of terminal package, transition part and lead-in gland	Maximum operating temperature range of connector / junction box
PVC	-25°C / +105°C	-40°C / +105°C	-40°C / +100°C
Silicon	-25°C / +160°C	-40°C / +230°C	-40°C / +100°C
PTFE	-45°C / +200°C	-45°C / +230°C	-45°C / +100°C

Cables with other insulating materials, such as kapton and / or additional glass fiber and / or metal braid / sheath, may be used within the allowable temperature range.

When using the transmitter, the maximum operating temperature shall be at least 10K lower than the maximum allowable ambient temperature of the transmitter. The minimum operating temperature is limited by the minimum ambient temperature of the transmitter. The operating temperature range of the optional Ex d type connector / junction box can be different, depending on the material used for sealing and other conditions. The minimum temperature is - 50°C and the maximum temperature is + 200°C.

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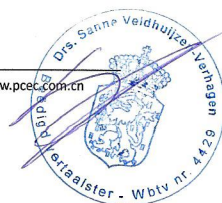
**Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd**

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Postal Code: 300131

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## Certificate for China Compulsory Product Certification

Certificate No.: 2021332315000690

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The relationship between process temperature and temperature group or maximum operating temperature is as follows:

Maximum process temperature $T_p$ (°C)	Temperature group / maximum working temperature (°C) of the whole device
75	T6
90	T5
125	T4
190	T3
285	T2
435	T1

(4) Enclosure protection grade: IP65.

### II. Special instructions

1. If the nominal tip diameter of mineral insulated metal armored cable for the sensor is less than 3mm, the sensor must be grounded. It must be assumed that it cannot pass the 500 Vac or 700 Vdc insulation strength test required by 1EC 60079-14. In addition, the sensor must be protected from mechanical shock. For more information, see the installation instructions.
2. If the actual application requires a detailed evaluation of the operating temperature of the components (e.g. due to higher process temperature and heat insulation), temperature measurement shall be carried out to verify that the specified temperature limit of the component is not exceeded.
3. When the temperature sensor is equipped with a ceramic insert, the insert shall be completely immersed in liquid medium, and the ambient temperature range of the over-line pouring seal part shall be  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ .

III. Test Report: PCBC21601-21100269

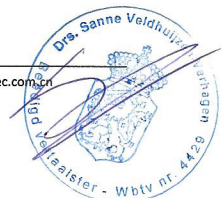
IV. Information of Alteration of the Certificate: None.

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[PCEC] Signed by: Yin Hong [Seal of Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd.]

**Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd**

022-26651066 Address: 85-1 Sanhao Road, Dingzigu, Tianjin Postal Code: 300131 <http://www.pcec.com.cn>





## Certificate for China Compulsory Product Certification

Certificate No.: 2021332315000691

### Name and Address of the Applicant

Thermo-Electra B.V.  
Weteringweg 10, 2641 KM Pijnacker, the Netherlands

### Name and Address of the Manufacturer

Thermo-Electra B.V.  
Weteringweg 10, 2641 KM Pijnacker, the Netherlands

### Name and Address of the Factory

Thermo-Electra B.V.  
Weteringweg 10, 2641 KM Pijnacker, the Netherlands

### Product Name, Model and Specification, Explosion-proof Mark

Temperature Sensors  
LEX25, EX ia IIC T6...T1 Ga; Ex ia/ib IIC T6... T1 Ga/Gb; Ex ib IIC T6...T1 Gb  
(See the appendix for related product information)

### The Standards and Technical Requirements for the Product

GB 3836.1-2010; GB 3836.2-2010

**It is hereby to issue this certificate to certify that the above mentioned product complies with the requirements of implementation rules for compulsory certification CNCA-C23-01:2019.**

**Date of Issue: May 8, 2021**

**Valid Till: May 7, 2026**

**Date of First Issue: May 8, 2021**

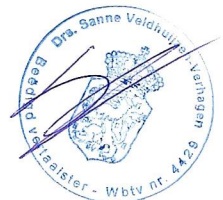
The validity of this certificate depends on the regular supervision of the issuing authority.  
The relevant information of the certificate can be obtained through the website of the  
Certification and Accreditation Administration of the P.R.C.: [www.cnca.gov.cn](http://www.cnca.gov.cn).

[PCEC] Signed by: Yin Hong [Seal of Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd.]

### Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd

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F 0003442



## Certificate for China Compulsory Product Certification

Certificate No.: 2021332315000691

Appendix

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I. The information of the product mentioned in this certificate is as following:

Temperature Sensors, LEX25, EX ia IIC T6...T1 Ga; Ex ia/ib IIC T6... T1 Ga/Gb; Ex ib IIC T6...T1 Gb,

(1) The LEX25 temperature sensor can be composed of sensors of different types and with different installation methods, inserts and screw thread lead-in device of the inserts. The terminals and connectors are connected directly with the cable. Cable sensors and ceramic inserts are optional components.

The sensor is protected by closed metal tubes or cables with mineral insulated metal sheath, with different lengths and diameters available. The sensor insert can be a single or multiple thermocouples, such as PTC, NTC (such as KTV), or resistance sensor (RTD).

Aluminum, cast iron, stainless steel or non-metallic enclosures can be used to provide a minimum protection grade of IP65. The connector / junction box can be equipped with terminals, or with separately certified transmitter of Ex i protection type with or without display screen. Plugs and sockets can be used in Ex i sensor circuits provided they are separate from non-intrinsically safe circuits and are not interchangeable.

(2) Intrinsic safety parameters of the sensor: max. Ui: 30V, li: 75mA, Pi 500mW, Ci: 0, Li: 0; transmitter used with temperature sensor: max. Pi: 2.25W.

(3) When the temperature sensor is connected with flying wire or terminal instead of transmitter, the explosion-proof level is "ia"; when the temperature sensor uses the transmitter, the explosion-proof level is the same as the transmitter, i.e. "ia", "ib" or "ia / ib".

(4) Ambient Temperature: Maximum Ambient Temperature Range: - 45°C to + 80°C. This temperature range can be limited by the material used (such as cable, connector, junction box) or the Ex i temperature transmitter used.

The ambient temperature range for the whole device, and the operating temperature range of connectors / junction box, transition parts and cables depend on the cable insulation materials listed in the table below.

Cable insulation	Cable operating temperature range	Allowable temperature range of terminal package, transition part and lead-in gland	Maximum operating temperature range of connector / junction box
PVC	-25°C / +105°C	-40°C / +105°C	-40°C / +100°C
Silicon	-25°C / +160°C	-40°C / +230°C	-40°C / +100°C
PTFE	-45°C / +200°C	-45°C / +230°C	-45°C / +100°C

Cables with other insulating materials, such as kapton and / or additional glass fiber and / or metal braid / sheath, may be used within the allowable temperature range.

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## Certificate for China Compulsory Product Certification

Certificate No.: 2021332315000691

Appendix

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When using the transmitter of Ex i protection type, the maximum operating temperature shall be at least 10K lower than the maximum allowable ambient temperature of the transmitter. The minimum operating temperature is limited by the minimum ambient temperature of the transmitter.

The relationship between process temperature and temperature group or maximum operating temperature is as follows:

Maximum process temperature $T_p$ (°C)	Temperature group / maximum working temperature (°C) of the whole device
75	T6
90	T5
125	T4
190	T3
285	T2
435	T1

If a temperature transmitter is used, the temperature group of the temperature transmitter shall also be considered.

(5) Enclosure protection grade: IP65.

### II. Special instructions

1. If the nominal tip diameter of mineral insulated metal armored cable for the sensor is less than 3mm, the sensor must be grounded. It must be assumed that it cannot pass the 500 Vac or 700 Vdc insulation strength test required by IEC 60079-14. In addition, the sensor must be protected from mechanical shock. For more information, see the installation instructions.
2. If the actual application requires a detailed evaluation of the operating temperature of the components (e.g. due to higher process temperature and heat insulation), temperature measurement shall be carried out to verify that the specified temperature limit of the component is not exceeded.
3. When the temperature sensor is equipped with a ceramic insert, the insert shall be completely immersed in liquid medium, and the ambient temperature range of the over-line pouring seal part shall be  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ .

III. Test Report: PCBC21601-21100270

IV. Information of Alteration of the Certificate: None.

Below is blank.

[PCEC] Signed by: Yin Hong [Seal of Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd.]

**Zhongchuang Xinhai (Tianjin) Certification Service Co., Ltd**

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Address: 85-1 Sanhao Road, Dingzigu, Tianjin

Postal Code: 300131

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I, Sanne Veldhuijzen – Verhagen, sworn as translator Dutch – English – Chinese before the court of Maastricht, declare that this document is a faithful translation of the attached document.  
Registration number: 4429

Ik, Sanne Veldhuijzen-Verhagen, beëdigd als vertaler Nederlands – Engels - Chinees voor de rechtbank van Maastricht, verklaar dat dit document een getrouwe vertaling is van het aangehechte document.  
Wbtv-nummer: 4429

本人，Sanne Veldhuijzen-Verhagen，中、荷、英法院宣誓翻译，法院宣誓翻译登记号码为4429，曾在荷兰马斯特里赫特市法院宣誓。本人在此声明，本文件是依据所附文件的如实翻译，其文意与原文相符。

