



# 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](http://www.iecex.com)

Certificate No.: IECEx INE 12.0001U Issue No: 1 Certificate history:  
Status: **Current** Page 1 of 4 [Issue No. 1 \(2016-04-01\)](#)  
Date of Issue: **2016-04-01** [Issue No. 0 \(2012-02-10\)](#)  
Applicant: **THERMO ENGINEERING S.r.l**  
Via Giuseppina, 19  
I - 26030 Malagnino (CR)  
**Italy**  
Equipment: **Connection head type TST..**  
*Optional accessory:*  
Type of Protection: **db and tb**  
Marking:  
Ex db IIC Gb  
Ex tb IIIC Db IP66

*Approved for issue on behalf of the IECEx  
Certification Body:*

Thierry HOUEIX

*Position:*

Ex Certification Officer

*Signature:  
(for printed version)*

*Date:*

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:

**INERIS**  
Institut National de l'Environnement Industriel  
et des Risques  
BP n2  
Parc Technologique ALATA  
F-60550 Verneuil-En-Halatte  
France



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Manufacturer: **THERMO ENGINEERING S.r.l**  
Via Giuseppina, 19  
I - 26030 Malagnino (CR)  
**Italy**

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** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-1 : 2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-31 : 2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

*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:

[FR/INE/ExTR12.0001/01](#)

Quality Assessment Report:

[FR/INE/QAR11.0009/04](#)



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## Schedule

### EQUIPMENT:

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

Connection head type TST with db and tb types of protection that can be fitted with adapters, nipples and blanking elements defined in manufacturer documentation.

Head, adapters, nipples and blanking elements are made in AISI 303/304/316/316L.

The head consist of a casing with 3 cable inlet fittings with M25x1mm cylindrical threads; a M27x1mm threaded fitting is located on the bottom to connect a thermal probe.

This Ex component can be used in range of ambient temperature from -40°C or -60°C to +200°C and gets the degree of protection IP66 in accordance with IEC 60529.

**CONDITIONS OF CERTIFICATION: NO**



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

### Issue 1:

- changing of the minimum ambient temperature from -50°C to -60°C;
- update from the IEC 60079-1:2007 to the IEC 60079-1:2014 standard;
- update from the IEC 60079-31:2008 to the IEC 60079-31:2013 standard;

### **Annex:**

[IECEX INE 12.0001U-01\\_Annex.pdf](#)



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Annexe: IECEx INE 12.0001U-01\_Annex.pdf

## **MARKING**

Marking has to be readable and indelible. In accordance with D.3.8 of IEC 60079-1 the Ex component enclosure shall be permanently marked internally. It has to include the following indications:

- THERMO ENGINEERING S.r.l  
I – 26030 Malagnino (CR)
- TST.. (1)
- IECEx INE 12.0001U
- Ex db IIC Gb
- Ex tb IIIC Db IP66
- Cable entry : See instructions
- EMPTY ENCLOSURE WITH Ex COMPONENT CERTIFICATE

(1) Type is completed by letters and numbers corresponding to the manufacturer variations.

## **SCHEDULE OF LIMITATIONS:**

- The width of the flameproof joints is greater than the values specified in tables of IEC 60079-1 standard.

In accordance with D.3.10 of IEC 60079-1:

- The content of the Ex component enclosure may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free.
- The maximum number of entries, their size and their positions are stipulated in the instructions.
- The ambient temperature and operating temperature ranges of the Ex component are:
  - -40°C to 200°C when it is fitted with O-Ring in Viton.
  - -60°C to 200°C when it is fitted with O-Ring in Silicone.

## **ROUTINE EXAMINATIONS AND TESTS**

In accordance with clause 16.2 of the IEC 60079-1 standard, the Ex component defined above is exempted from routine test due to the fact that a static pressure test has been performed for - 60°C at 4 times the reference pressure under 48.2 bar.