



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

Certificate No.: IECEx INE 12.0008X

Issue No: 1

Certificate history:

Status: **Current**

Issue No. 1 (2016-04-01)

Issue No. 0 (2012-03-14)

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Date of Issue: **2016-04-01**

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

Equipment: **Three Piece Union type GNT**

Optional accessory:

Type of Protection: **db and tb**

Marking:

Ex db IIC Gb
Ex tb III C Db IP66

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

Thierry HOUÉIX

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

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/ExTR12.0007/01](#)

Quality Assessment Report:

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



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Metallic devices intended to be fitted on Ex d and Ex tb enclosures. They can be used in range of ambient temperature from -60°C to +180°C.

These devices get the degrees of protection IP66 in accordance with IEC 60529.

They can be fitted with the following adaptors:

Type	Size M	Size F	Pitch	Material
TE-GNT03-S	3/4" NPT	1/2" NPT	1.814 mm	Stainless steel
TE-GNT04-S	1/2" NPT	3/4" NPT	1.814 mm	Stainless steel
TE-GNT03-C	3/4" NPT	1/2" NPT	1.814 mm	Carbon steel
TE-GNT04-C	1/2" NPT	3/4" NPT	1.814 mm	Carbon steel
TE-GNT03-B	3/4" NPT	1/2" NPT	1.814 mm	Brass
TE-GNT04-B	1/2" NPT	3/4" NPT	1.814 mm	Brass

SPECIFIC CONDITIONS OF USE: YES as shown below:

The diametrical clearance of the cylindrical joint is less than the values specified in the table of the IEC 60079-1 standard.

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

The equipment can be mounted on enclosures with a max volume of 260 cm³ and a max reference pressure of 12.05 bar.



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

- 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 12.0008X-01_Annex.pdf](#)



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Annexe: IECEX INE 12.0008X-01_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Range of ambient temperatures: from -50°C to 180°C.

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- THERMO ENGINEERING S.r.l
- I – 26030 Malagnino (CR)
- GNT (*)
- IECEX INE 12.0008X
- (Serial number)
- Ex d IIC Gb
- Ex tb IIIC Db IP66
- Diameter 1/2" NPT

The marking can be reduced at:

- THERMO ENGINEERING S.r.l or TE
- GNT (*)
- IECEX INE 12.0008X
- Ex d/tb

(*) Type is completed by letters corresponding to the following manufacturing variations:

- SMF for three piece male/female in stainless steel.
- CMF for three piece male/female in carbon steel.
- BMF for three piece male/female in brass steel.
- SFF for three piece female/female in stainless steel.
- CFF for three piece female/female in carbon steel.
- BFF for three piece female/female in brass steel.

ROUTINE EXAMINATIONS AND TESTS

None.