

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX INE 13.0053X** Page 1 of 4

Certificate history:

Current Status:

Issue No: 1

Issue 0 (2013-10-14)

Date of Issue: 2021-02-26

Applicant: COELBO S.r.I.

> Via Santa Margherita, 83 I – 20861 Brugherio (MB)

Italy

Equipment: Thermostats series T...

Optional accessory:

Type of Protection: db and tb

Marking: Ex db I Mb

Ex db IIB+H2 T6...T5 Gb Ex tb IIIC T85°C...T100°C Db

Approved for issue on behalf of the IECEx Certification Body:

Thierry HOUEIX

Ex Certification Officer

Position: Signature:

(for printed version)

2021-03-30

Date:

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 The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

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



controlling risks for sustainable development



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COELBO S.r.I. Manufacturer:

Via Santa Margherita, 83 I – 20861 Brugherio (MB)

Additional manufacturing locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

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 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/ExTR13.0051/01

Quality Assessment Report:

IT/CES/QAR10.0009/10



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Thermostats series T.. consist of a flameproof enclosures including capillary bulb and thermoregulator elements.

The enclosures are made in light alloy for using in Groups IIB+H2 and IIIC. This equipment is also available in stainless steel AISI316L or brass CW608N for using in Groups I, IIB+H2 and IIIC.

The enclosures get the degrees of protection IP65 in accordance with the IEC 60529 standard.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The dimensions of flameproof joints are different from the values specified in the tables of the IEC 60079-1 standard. The flameproof joints are not intended to be repaired.

The screws used for the assembly of the various parts of explosion-proof enclosures must be of quality higher or equal to 450 MPa.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Application of new standards version: IEC 60079-0:2017, IEC 60079-1:2014 and IEC 60079-31:2013

Annex:

IECEx INE 13.0053X-01_Annex-rev1.pdf



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Annex: IECEx INE 13.0053X-01_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage : 250 Vac or 250 Vdc

Maximum intensity : 16 A

Nominal frequency : 50/60 Hz

Maximum dissipated power : 7.7 W

Maximum temperature of the controlled fluid or gas : 150°C

These enclosures are intended to be used in the following ranges of ambient temperatures, in accordance with the temperature class:

From -20°C to + 40°C for class T6/T85°C, From -50°C to + 40°C for class T6/T85°C, From -20°C to + 60°C for class T5/T100°C, From -50°C to + 60°C for class T5/T100°C.

MARKING

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

A. Thermostats in light alloy:

- COELBO
- I 20861 Brugherio (MB)
- T... (*)
- IECEx INE 13.0053X
- (Serial number)
- Ex db IIB+H2 T(**) Gb
- Ex tb IIIC T(**)°C Db
- IP65
- Tamb. : (**)
- Tcable: 85°C (***)
- WARNING:
 - O DO NOT OPEN WHEN ENERGIZED

B. Thermostats in stainless steel or brass:

- COELBO
- I 20861 Brugherio (MB)
- T... (*)
- IECEx INE 13.0053X
- (Serial number)
- Ex db I Mb
- Ex db IIB+H2 T(**) Gb
- Ex tb IIIC T(**)°C Db
- IP65
- Tamb. : (**)
- T.cable : 85°C (***)
- WARNING:
 - o DO NOT OPEN WHEN ENERGIZED
- (*) The type is completed by numbers and/or letters in accordance with the manufacturing variations.
- (**) Indication of temperature class and range of ambient temperatures as specified in the parameters relating to the safety.
- (***) Indication only for Tamb +60°C



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ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of IEC 60079-1 standard, each tube with welding must have successfully passed before delivery, an overpressure test, of a period comprised between 10 and 60 seconds under:

- 8.7 bar for ambient temperature down to -20°C
- 13.3 bar for ambient temperature down to -50°C

In accordance with clause 16.1 of IEC 60079-1 standard, the equipment fitted with a tube without welding must have successfully passed before delivery, an overpressure test, of a period comprised between 10 and 60 seconds under 13.3 bar for ambient temperature down to -50°C.

In accordance with clause 16.2 of the IEC 60079-1 standard, the equipment fitted with a tube without welding, is exempted of routine test in owing to the fact that it has undergone a static type test at 4 times the reference pressure under 23.2 bar for ambient temperature down to -20°C.