IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com
Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx KLCS 25.0023U**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2025-05-15

Applicant: **Techno Instruments**
Plot No.1145/1, Opposite Maruti Ind.,
Uma Convertor Lane, Santaj Ranchhodpura Road,
Santaj, Tal. Kalol
Dist: Gandhinagar, Gujarat 382721
India

Ex Component: RTD / Thermocouple, SHLRT 10 series

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Increased safety "e"**

Marking: Ex eb IIC Gb, -20°C ≤ Ts ≤ +75°C

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

Position: **Dy. Director (Operations)**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

Karandikar Laboratories Certification Services
Gat No. 142, Boisar Chillar Rd.,
Opp. Union Park, At Betegaon,
Boisar (E), Tal- Palghar
Maharashtra 401501
India

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Certificate No.: **IECEx KLCS 25.0023U**

Date of issue: 2025-05-15 Issue No: 0

Manufacturer: **Techno Instruments**
Plot No.1145/1, Opposite Maruti Ind.,
Uma Convertor Lane, Santaj Ranchhodpura Road,
Santaj, Tal. Kalol
Dist: Gandhinagar, Gujarat 382721
India

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 component 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 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 component listed has successfully met the examination and test requirements as recorded in:

Test Report:

IN/KLCS/ExTR25.0024/00

Quality Assessment Report:

IN/KLCS/QAR25.0001/00

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Ex Component(s) covered by this certificate is described below:

RTD / Thermocouple, Model : SHLRT 10 series consists of a temperature probe assembly with type of protection “Ex eb”.

The spring loaded temperature probe is a mineral insulated austenitic stainless steel tube, tightly filled with Magnesium Oxide Powder. The temperature probe is composed of 2, 3 or 4 wire temperature sensing devices which run through the metal tube and the magnesium oxide powder helps keep these wires insulated and separated. The steel probe is TIG welded with steel cap at one end and has a potted seal at the other end. The probe can have length from 50mm to 50000mm and diameter from 3 to 10mm for RTD/Thermocouple sensor.

Refer Annex to IECEx KLCS 25.0023U for type designation

SCHEDULE OF LIMITATIONS:

1. When assessed in combination with other devices as an Ex equipment it shall be ensured that the sealing compound at the top of the probe stem is not immersed in liquid.
2. The flying leads shall be terminated in an appropriately Ex certified enclosure in such a way that minimum IP54 rating is maintained.
3. The service temperature of RTD / Thermocouple is -20°C to +75°C.
4. Sealing compound shall not be exposed to ultraviolet light.
5. The interface between the RTD/Thermocouple and the enclosure shall be tested and assessed for compliance with the relevant type of protection.
6. Connection facilities of the enclosure in which the flying leads are going to be connected should be designed in such a way that after proper connection of conductors, the creepage and clearance distances comply with the requirements, if any, of the Specific type of protection concerned.
7. Operating temperature range marked on the nameplate indicates the process temperature limits for which the RTD / Thermocouple can be used. When assessed in combination with other devices as an Ex equipment it shall be ensured that the effect of process temperature is considered when assigning the temperature class and ambient temperature.

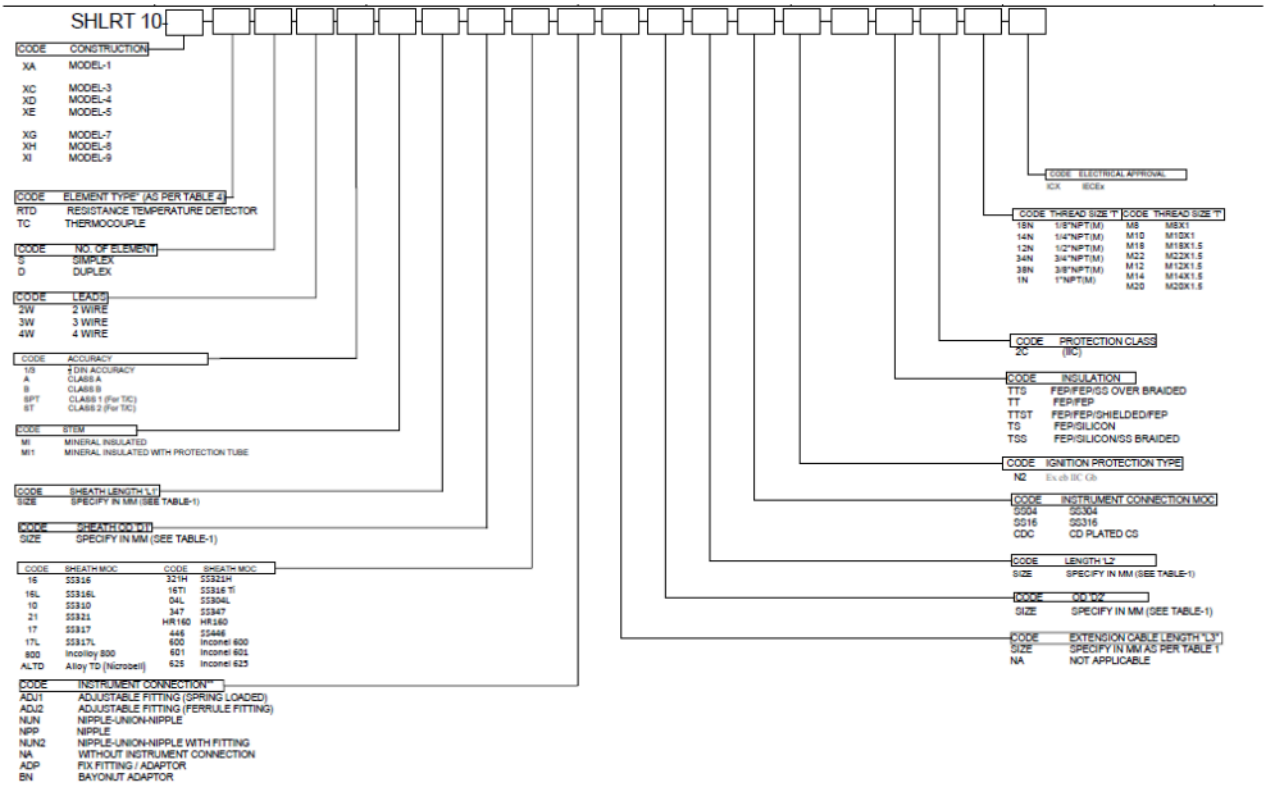
Annex:

ANNEX TO IECEx KLCS 25.0023U.pdf

ANNEX to IECEx KLCS 25.0023U, Issue No. 00

Date: 15.05.2025

Type designation :



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