



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

Ex COMPONENT CERTIFICATE

Certificate No.: IECEx BVS 19.0034U

Issue No: 0

Certificate history:

[Issue No. 0 \(2019-05-24\)](#)

Status: **Current**

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Date of Issue: **2019-05-24**

Applicant: **Insta Control Private Ltd.**
No. 1-4, "G" Block
Vishnu Malati Industrial Estate Shivane, Pune - 411 023
India

Ex Component: **BTB (Bearing Temperature Detector) Soldered Version and BTB (Bearing Temperature Detector) Crimped Version
types BTB-SV and BTB-CV**

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

Approved for issue on behalf of the IECEx
Certification Body:

Jörg Koch

Position:

Head of Certification Body

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:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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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 Component 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 Ex 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 electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the Ex Component listed has successfully met the examination and test requirements as recorded in

Test Report:

[DE/BVS/ExTR19.0032/00](#)

Quality Assessment Report:

[DE/BVS/QAR17.0013/01](#)



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Schedule

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

General product information:

BTD (Bearing Temperature Detector) Soldered Version type: BTD-SV and

BTD (Bearing Temperature Detector) Crimped Version type: BTD-CV

A separate order code defines the number of internal sensors, the dimensions of the sensor as also wire size, number of wires, wire type and the wire length.

BTD (Bearing Temperature Detector) Soldered Version type: BTD-SV and Crimped Version type: BTD CV is a Pt100 or PT1000 resistance temperature detector and designed in type of protection Increased Safety "e". They are intended for the temperature measurement of motor/generator bearings of motors/generators in type of protection Increased Safety "e". The sensors are potted into metal housings. They are designed for use in tapped holes on bearing housings of motors/generators in type of protection Increased Safety "e".

Parameters

Nominal voltage	max.	24	V
Nominal current	max.	5	mA
Operating temperature	-30 °C up to +180		°C
Rated resistance (Pt100)	100 Ohm @ 0 °C, 138.5 Ohm @ +100		°C
Rated resistance (Pt1000)	1000 Ohm @ 0 °C, 1385.06 Ohm @ +100		°C

SCHEDULE OF LIMITATIONS:

The sensors must be mounted on motor / generator bearings by providing suitable tapped holes in the bearing housing. In case of a version with separated tightening nut the lines has to be provided against twisting.

After installation of the sensors into a bearing of a motor or generator enclosure the connection, the insulation and the dielectric strength have to fulfil the requirements of type of protection Increased Safety "e" (EN IEC 60079-7:2015+A1:2018).

During the installation of the sensor carving and bending have to be avoided. The lead wires shall not be subjected to any pulling force and should be installed protected against mechanical destruction.