RTD temperature probes

Ex „i“ for use in areas with an explosion hazard (Ex areas)

Operating Manual

90282000T90Z001K000

V9.00/EN/00404304/2023-08-15

JUMO

Table of contents

1 Object of these instructions and purpose of application

RTD temperature probes from JUMO are used as intrinsically safe equipment and/or equipment with flameproof enclosure for temperature measurements in liquid and gaseous media as well as with dust. The thermometers consist of a protection fitting with various process connections, a terminal head or connecting cable, and, depending on the type, with an interchangeable measuring insert. All fittings (parts in contact with the process) are subjected to a leak test. Pt100 temperature sensors according to DIN EN 60751:2009 / IEC 60751:2008 are used in the fittings in tolerance classes F 0.1, F 0.15 and F 0.3 in a two-wire, three-wire, or four-wire circuit (see chapter 8 "Connection types of RTD temperature probes"). The use of these sensors with a higher basic value (Pt500, Pt1000, Pt2000, or Pt5000) is possible. Similarly, NTCs, such as KTY, or other PTCs can also be used. Versions with two or three measuring circuits are also possible. A transmitter can be installed in the terminal head for measurement transmission with a standard signal (e.g. 4 to 20 mA).

They fulfill the requirements for explosion group II of the categories 1 G and 1 D, as well as 2 G and 2 D. They are therefore suitable for use in the potentially explosive area of zones 1 and 2 in the case of gas (**G**as), and zones 21 and 22 in the case of dust (**D**ust). The probe tube is also permitted to extend into zone 0 or 20 (zone isolation) under certain conditions.

The relevant probe-specific features can be found on the corresponding data sheet/drawing (see annex) and/or on the label stuck into this operating manual.

Depending on the needs of the application and the measurement task, RTD temperature probes are available with different terminal heads, various process connections, matching thermowells, with or without interchangeable measuring inserts, or with the connecting cable mounted.

RTD temperature probes with ignition protection type Ex "i" are certified for connection to intrinsically safe electrical circuits of category ib (for applications in zones 1 and 2, with separation element in zone 0) and of category ia (for use of the probe tube in zones 0, 1, and 2).

RTD temperature probes in flameproof enclosure (terminal head and cable fitting) are also fitted with measuring inserts in an intrinsically safe version for connection to intrinsically safe electrical circuits.
When connecting to non-intrinsically safe electrical circuits, the power introduced must be restricted by the user to ensure that the maximum surface heating – according to the temperature class minus the safety clearance – is not exceeded!
For this purpose, see also chapter 5 "Technical data, explanations, and case examples" of this operating manual.

Scope of application
This operating manual applies to the following type examination certificates:
SEV 15 ATEX 0118
IECEx SEV 15.0006

SEV 13 ATEX 0197
IECEx SEV 13.0010

TÜV-A 06 ATEX 0004(X) – 1st - 5th addition
TÜV-A 06 ATEX 0005U – 1st - 3rd addition

This operating manual applies to the following product groups:
902820... Ex i RTD temperature probe with terminal head
902821... Ex i RTD temperature probe with connecting cable

Target group
Experienced skilled electricians according to the EU directive 1999/92/EC and instructed persons

2 Identification marking

The type of RTD temperature probe used is identified on the nameplate/terminal head. Each RTD temperature probe with an individual identification marking is assigned a probe-specific drawing/data sheet. All probes can be uniquely identified and traced through the relevant identification marking. The probe-specific values can be found on the drawing, the data sheet, and/or the label stuck into this operating manual.

3 Safety information

The relevant technical data for using the device in potentially explosive areas are listed in the relevant drawing, the relevant data sheet, and/or on the label stuck into this operating manual.

Operate all RTD temperature probes according to the intended use, only when they are in an undamaged and clean condition!

No modifications may be made to the RTD temperature probes. Otherwise, it may no longer be possible to ensure error-free functioning. Moreover, all warranty claims will be invalidated. When replacing interchangeable measuring inserts, only JUMO original parts of the same type should be used.

The national and international safety and accident prevention regulations must be observed during installation, during work on and with the RTD temperature probes, as well as during mounting at the installation location. Furthermore, the plant operator is responsible for compliance with the legal regulations. If connecting cable extensions are used, the specific length-dependent capacitance and inductance must be observed.

4 Compliance with standards

CAUTION: this operating manual is only valid for the listed type examination certificates and the standards listed therein.

Inspection document number
- SEV 15 ATEX 0118
- IECEx SEV 15.0006

- SEV 13 ATEX 0197
- IECEx SEV 13.0010

- TÜV-A 06 ATEX 0004(X) – 1st - 5th addition
- TÜV-A 06 ATEX 0005U – 1st - 3rd addition

Directives
2014/34/EU (ATEX)
2014/30/EU (EMC)

Standards applied (see EU declaration of conformity)
EN IEC 60079-0
EN 60079-1
EN 60079-11
EN 60079-26
EN 60079-31
EN ISO/IEC 80079-34

The JUMO quality management system according to EN ISO 9001 is the basis for compliance with directive 2014/34/EU.

The RTD temperature probes are developed, produced, and examined in accordance with the state of the art and according to the relevant standards and regulations.

5 Technical data, explanations, and case examples

CAUTION: for specific data, see the data sheet/drawing, and/or the label stuck into this operating manual

5.1 Intrinsically safe connection, ignition protection type Ex "i"

The equipment used in potentially explosive areas only contains intrinsically safe electrical circuits. An electrical circuit is intrinsically safe if no ignitable sparks occur in normal cases and in the case of malfunction due to a short circuit of the electrical circuit, or the surface of the devices does not heat up above the specified temperature class due to the current flowing (see also EN 60079-11).

In order that an electrical circuit can be designated as intrinsically safe, all devices in the circuit must be designed to be intrinsically safe. Furthermore, it must be ensured that the interconnection of intrinsically safe devices meets the requirements for an intrinsically safe electrical circuit. **The interconnection of any intrinsically safe devices does not ensure an intrinsically safe circuit in itself.**

In an RTD temperature probe, the measuring current (or in the case of a malfunction, the fault current) flows through the sensor element. Self-heating of the element occurs and, ultimately, a temperature increase on the surface of the protection fitting also occurs. It must be ensured that the limit of the specified temperature class is not exceeded.

Temperature class	Maximum surface temperature of the equipment[1]	Ignition temperature of the combustible materials
T1	450 °C	> 450 °C
T2	300 °C	> 300 < 450 °C
T3	200 °C	> 200 < 300 °C
T4	135 °C	> 135 < 200 °C
T5	100 °C	> 100 < 135 °C
T6	85 °C	> 85 < 100 °C

Table 2: temperature classes

Surface heating is determined by the temperature probe design, by the environmental influences (thermal coupling to the measurement medium), as well as the power fed in. The self-heating characteristics of the thermometer are characterized by a protection tube constant (SK) [K/W], which specifies the surface heating in still air compared to the ambient temperature, depending on the power supplied. The protection tube constant (SK) is determined by JUMO and can be found on the data sheet/drawing, and/or the label stuck inside. The operator must determine whether the thermometer is suitable for the measurement task for the relevant application and the connected equipment. The maximum admissible measurement temperature on the tip of the probe is determined using the following equation: $\mathbf{T_S = T_K - P_i \times SK}$.

T_S Maximum admissible temperature at the tip of the probe
T_K Maximum admissible surface temperature depending on the temperature class (cf. table minus safety clearance)
P_i Power of the certified, intrinsically safe electrical circuit (if a transmitter is used, the value of P_o of the relevant transmitter must be used for P_i.)
SK Protection tube constant (see data sheet/drawing)

The following diagram shows example self-heating characteristics of the probe surface of an RTD temperature probe depending on the power fed in and the temperature present in the inside of the probe here. **The heating characteristics must be considered independently of the ignition protection type and equally for the flameproof enclosure.**

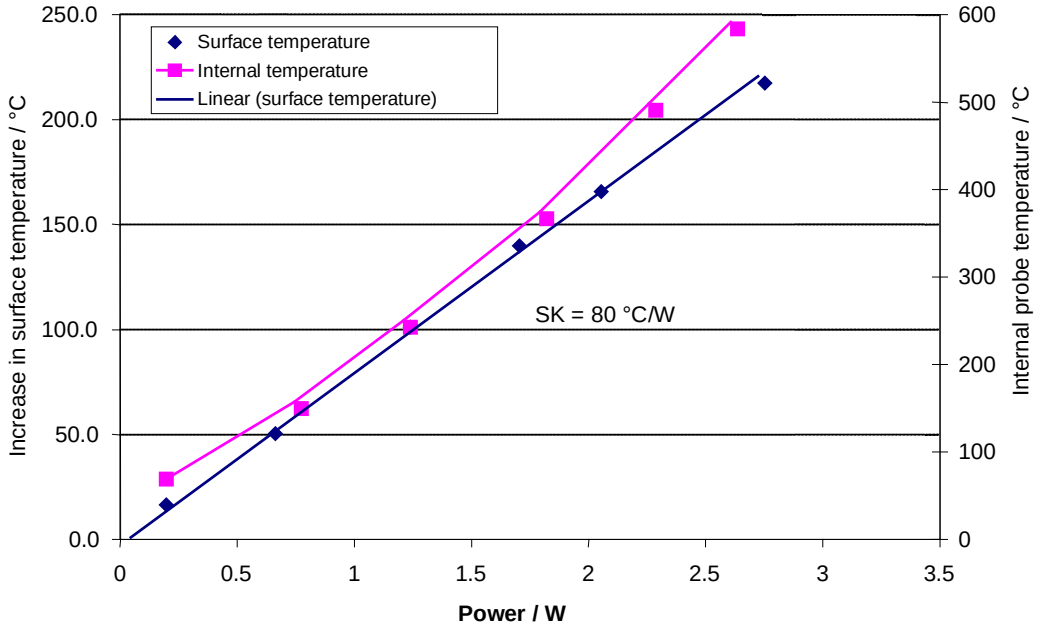

Figure 1: self-heating characteristics of a Pt100 RTD temperature probe

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[1] **Explanation**
In addition, the following safety clearances **must be adhered to:**
Category 1: according to EN 1127-1:2011, point 6.4.2 (hot surfaces), the temperatures of all surfaces of devices...for use in zone 0...which may come into contact with a potentially explosive atmosphere…must not exceed...80 % of the ignition temperature.
⇨ Temperature class less 20 %. Subsequently, another 10 °C must be subtracted in temperature classes T1 and T2, and another 5 °C in temperature classes T3 to T6.
Category 2: in the case of temperature classes T1 and T2, a 10 °C safety deduction must be applied, and in the case of temperature classes T3 to T6, a 5 °C safety deduction must be applied.

Example 1:

A thermometer is to be used in temperature class T4 (maximum temperature 135 °C, limit is to be reduced by 5 K for safety);

Protection tube constant (SK) = 80 K/W

Maximum power of the electrical circuit P_i = 0.5 W

T_S = 130 °C - 0.5 W × 80 K/W
T_S = 130 °C - 40 K = 90 °C

The maximum temperature (measuring/medium temperature) on the tip of the probe must therefore not exceed a value of 90 °C, as an exceedance of the temperature class limit must be expected in the case of a malfunction. **EXPLOSION HAZARD!**

Example 2:

The same thermometer is to be used in the same application case as above. However, the maximum power with the JUMO dTRANS T01 transmitter is considerably lower, which significantly increases the maximum measurement temperature and results in a larger application spectrum;

Protection tube constant (SK) = 80 K/W

Maximum power of the electrical circuit P_i ($\triangleq P_o$) = 0.011 W (JUMO transmitter type 707015)

T_S = 130 °C - 0.011 W × 80 K/W
T_S = 130 °C - 0.88 K = 129.12 °C

The maximum temperature (measuring/medium temperature) on the tip of the probe must therefore not exceed a value of 129.12 °C, as an exceedance of the temperature class limit must be expected in the case of a malfunction. **EXPLOSION HAZARD!**

If a further transmitter is used in a thermometer with a terminal head, the admissible application limits of the transmitter also have to be taken into consideration. The transmitter is hermetically sealed in the terminal head. The temperature in the terminal head increases due to the following: the ambient temperature, the heat input from the measurement medium via the protection fitting, and the surface heating caused by the self-heating of the transmitter.

The self-heating and heat input via the protection fitting have been determined for a worst-case scenario in which the measurement temperature is 300 °C and the maximum power loss of the transmitter is 750 mW. In this case, the temperature increase in the terminal head is 18 K compared with the ambient temperature of the terminal head.

In consideration of the prevailing ambient temperature in the relevant application case, it must be verified whether the transmitter is being operated within the parameters of its specification and, thus, does not pose an explosion hazard.

**It is imperative that the specifications of the type examination certificate of the transmitter being used
are observed and adhered to.**

Example transmitter:

Temperature measurement in T4 max. 135 °C, ambient temperature of the terminal head 40 °C, the temperature increase in the head 18 K. This results in a maximum temperature in the terminal head of 40 °C + 18 K = 58 °C. The JUMO dTRANS T01 transmitter is being used in this case according to data sheet 707010 in "II1G", which is only allowed to have an ambient temperature of max. 60 °C when used in class T4. As 58 °C < 60 °C, the transmitter can be operated in the surrounding area in the T4 temperature class in the terminal head.

5.2 General information about ignition protection types

Generally, even when using other ignition protection types, the self-heating characteristics of the equipment have to be specified, according to EN 60079-0, and classified into the relevant temperature class.

5.3 Ignition protection type: flameproof enclosure Ex "d"

The parts that can ignite a potentially explosive atmosphere are arranged in a pressure resistant housing (here terminal head with cable fitting) that, in the event of an explosion of an explosive mixture, withstands the pressure inside and prevents the explosion from transferring to the potentially explosive atmosphere surrounding the housing. So the principle is the safe management of a potential explosion.

The flameproof enclosure versions do not necessarily have to be connected to an intrinsically safe electrical circuit, although it is vital to ensure that the temperature increase of the thermometer is restricted, as described in detail in 5.1 and illustrated with the example cases.

The temperature classes and safety clearances are equally applicable to both ignition protection types. It must also be observed how the temperature changes in the terminal head during the use of a possibly inbuilt transmitter.

For use in zone 0 (G) or 20 (D), ignition protection type flameproof enclosure "d" by itself is not sufficient by any means. 2 independent ignition protection types and/or a separation element to separate the zones are required.

In a potentially explosive atmosphere, the terminal head and/or connection terminals must not be opened when voltage flows if the ignition protection type "intrinsically safe" (Ex "i") is not also applied.

5.4 Use in areas that are potentially explosive due to dust

Dust explosion protection: safe limitation of energy;
ignition protection type "protection through intrinsic safety"
In order to safely limit the energy fed to the probe element, including in the event of a malfunction in the device supplying the power, use of an electrical circuit with the ignition protection type "intrinsic safety" is exceptionally suitable. The ignition protection type "protection through intrinsic safety" means that, in the area that is potentially explosive due to dust, the only criterion is the characteristic of safe limitation of electrical variables in the intrinsically safe devices by means of the associated intrinsically safe devices. Head transmitters of the category 1G/2G are included in the terminal head in the ignition protection type "protection through housing". The associated intrinsically safe device, which must be positioned outside of the potentially explosive area, does not have to fulfill requirements with regard to category 1D/2D. For the intrinsically safe devices/the associated intrinsically safe devices, the category identifications 1G/2G are therefore sufficient for the device requirements of the area that is potentially explosive due to gas.

For use in areas that are potentially explosive due to dust, the following temperature values must be considered:

The following applies for all zones:
The equipment's surface temperature must not increase to the point at which clouds of dust or dust deposited on equipment could ignite. This is achieved through the following conditions:

Without dust deposits
The surface temperature must not exceed $^{2}/_{3}$ of the ignition temperature in °C of the respective dust/air mixture.

With dust deposits
Surfaces on which dangerous deposits of smolderable dust cannot be prevented must have a surface temperature that is at least 75 K below the smoldering temperature of the dust concerned. If layers thicker than 5 mm occur, a further reduction of the surface temperature is required.

Where a combination of swirling and deposited dust occurs, the lower of the temperature values derived above must be applied.

Remark:
In this case, surface means the exterior surface of the equipment, see also EN 60079-14.

The ignition or smoldering temperature of the dust or dust/air mixture that is present must be defined or determined by the plant operator!

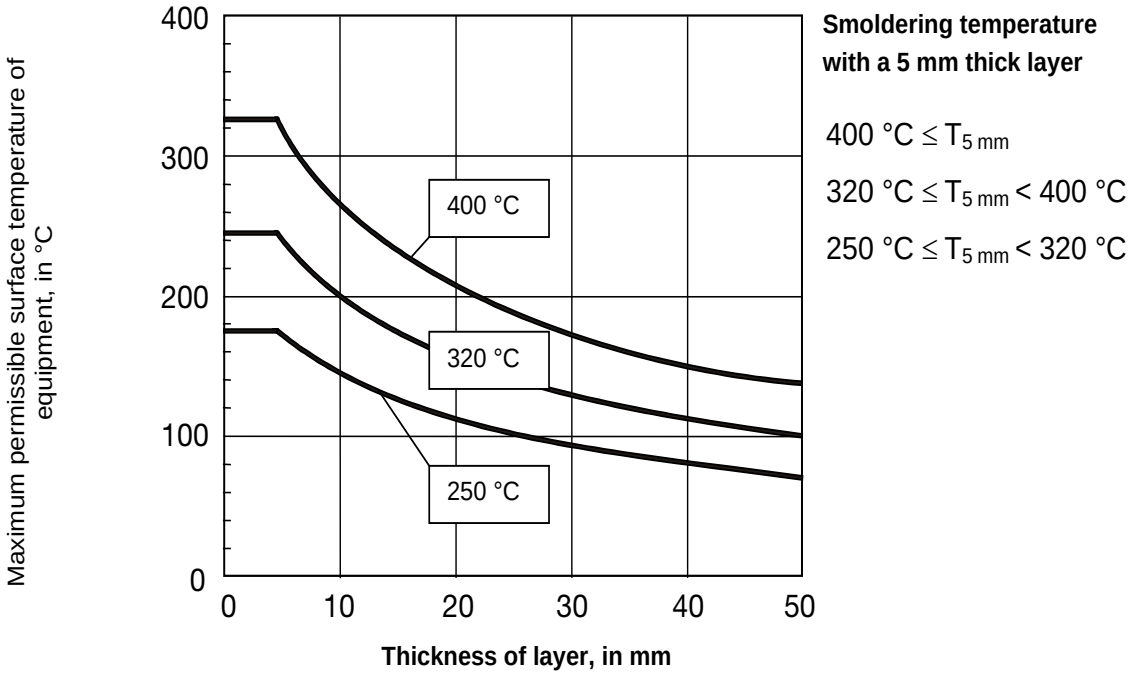


Figure 2: **Reduction of the maximum admissible surface temperature with increasing thickness of the dust layer**

6 Installation

The relevant valid European and national provisions must be adhered to for setup/operation. The generally accepted rules of engineering and this operating manual are authoritative.

RTD temperature probes from JUMO are intended for measuring the temperature within potentially explosive areas in which flammable or non-flammable liquids, gases, or gas/air mixtures, as well as explosive dusts, may be present. In the case of devices belonging to ignition protection type Ex "i", the supply and evaluation is carried out via certified, intrinsically safe electrical circuits.

The RTD temperature probes are attached with the process connection on the mounting site. Depending on the process connection, the RTD temperature probe can or must be installed in an additional screw-in or weld-in sleeve. If a thread is attached as a process connection, the full thread length of the RTD temperature probe must be in use.

The supply of the RTD temperature probe must be routed in a fixed manner if the RTD temperature probe is mounted on containers or pipes in which an explosive gas/air mixture (zone 0, 1G, or EPL Ga) or dust (zone 20, 1D ,or EPL Da) is present – whether permanently or for long periods.
Metallic connector housings must be grounded for potential equalization via the connecting cable.
Non-metallic connector housings must not exceed the maximum surface according to EN 60079-0.
The screw-in or weld-in sleeve is intended for, amongst other things, zone separation and is made from steel, stainless steel, HASTELLOY®, etc. and has a minimum wall thickness of 1 mm.
Devices which are installed in the separating wall between an EPL Da area and an area that is less endangered have both EPLs indicated in the nameplate with a slash separating them (e.g. Ex d IIC T6 Da/Db or Ex ia/d IIB T4 Da/Db).
The separator between the equipment protection levels in connection with ignition protection type Ex "ia" indicates that the probe may be inserted into zone 0 without a separation element.
The separator Da/Db in the version with the ignition protection type "ib" indicates an existing separation element. As a result, the fitting can only protrude into zone 0 with a separation element.

The standard EN 60079-14 "Explosive atmospheres Part 14: Electrical installations design, selection and erection" must be observed.

In particular, equipment used in potentially explosive areas where hybrid mixtures are present must be checked. Hybrid mixtures are explosive mixtures of flammable gases, vapors, or mists with flammable dusts. The operator is responsible for checking that the equipment is suitable for such uses.

Caution:
It is the plant operator, not the equipment manufacturer/supplier, who always has responsibility for zone classification.

Gases, mist, vapors	Dust	Potentially explosive atmosphere present	Guide values
Zone 0	Zone 20	Continuously, long-term, or frequently	> 1000 hours/year
Zone 1	Zone 21	Occasionally	10 to 1000 hours/year
Zone 2	Zone 22	Rarely and briefly	< 10 hours/year

Table 3: zone classification

7 Maintenance

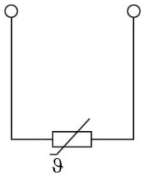
The European and national regulations applicable to maintenance/repair/inspection must be adhered to. During maintenance, the parts upon which the ignition protection type depends must be checked in particular.

Furthermore, thermometers with a plastic terminal head and all plastic parts (e.g. plug connectors, etc.) must only be cleaned with a damp cloth in order to prevent electrostatic charge.

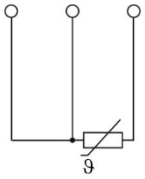
8 Connection types of RTD temperature probes

(applies equally to RTD temperature probes with a terminal head/connecting cable from JUMO)
Combinations of the following electrical circuits can also be implemented
(e.g. 2× three-wire circuit and 1× two-wire circuit).

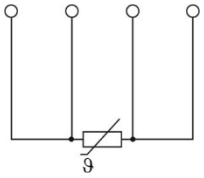
Two-wire circuit



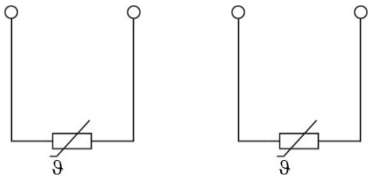
Three-wire circuit



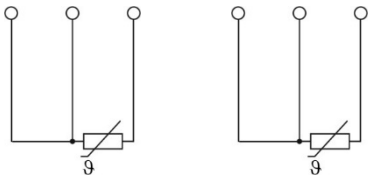
Four-wire circuit



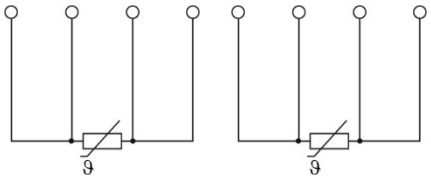
2× two-wire circuit



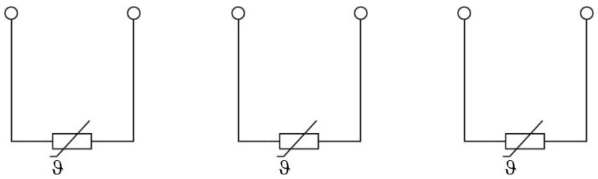
2× three-wire circuit



2× four-wire circuit



3× two-wire circuit



9 Declaration of conformity

The EU declaration of conformity is part of the scope of delivery.

The CE identification marking is part of the nameplate. The product corresponds to the state of the art, as well as the applicable safety regulations at the time of placement on the market within the scope of its intended use

The JUMO quality management system according to EN ISO 9001 is the basis for compliance with directive 2014/34/EU.

9 Declaration of conformity

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EU-Konformitätserklärung

EU declaration of conformity / Déclaration UE de conformité

Dokument-Nr. *Document No. / Document n°.*	CE 762
Hersteller *Manufacturer / Etabli par*	JUMO GmbH & Co. KG
Anschrift *Address / Adresse*	Moritz-Juchheim-Straße 1, 36039 Fulda, Germany

Produkt
Product / Produit

Name *Name / Nom*	**Typ** *Type / Type*	**Typenblatt-Nr.** *Data sheet no. / N° Document d'identification*
JUMO PROCESStemp	902820	902820

Produktbeschreibung
Product description / Description du produit

Widerstandsthermometer für die Prozesstechnik mit Ex-Zulassung.

Wir erklären in alleiniger Verantwortung, dass das bezeichnete Produkt die Anforderungen der Europäischen Richtlinien erfüllt.

We hereby declare in sole responsibility that the designated product fulfills the requirements of the European Directives.

Nous déclare sous notre seule responsabilité que le produit remplit les Directives Européennes.

9 Declaration of conformity

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1. Richtlinie
Directive / Directive

Name *Name / Nom*	ATEX 2014/34/EU
Konformitätsbewertungsverfahren *Conformity assessment procedure / Procédure d'évaluation de la conformité*	Mod. B+D
Datum der Erstanbringung des CE-Zeichens auf dem Produkt *Date of first application of the CE mark to the product / Date de 1ère application du sigle sur le produit*	2002

Gültig für Typ
Valid for Type / Valable pour le type
All types with extra code 362

1.1 EU-Baumusterprüfbescheinigung
EU type examination certificate / Certificat d'examen de type UE

Zertifikatsnummer *Certificate number / Numéro de certificat*	SEV 15 ATEX 0118
Notifizierte Stelle *Notified Body / Organisme notifié*	Eurofins Electric & Electronic Product Testing AG, Luppmenstrasse 3, 8320 Fehraltdorf, Switzerland

Angewendete Normen/Spezifikationen
Standards/Specifications applied / Normes/Spécifications appliquées

Referenz *Reference / Référence*	**Ausgabe** *Edition / Édition*	**Bemerkung** *Comment / Remarque*
EN 60079-0	2018	
EN 60079-1	2014	
EN 60079-11	2012	
EN 60079-26	2015	
EN 60079-31	2014	

9 Declaration of conformity

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Qualitätssicherung bezogen auf den Produktionsprozess
Quality assurance of the production process / L'assurance de la qualité de la production

Zertifikatsnummer *Certificate number / Numéro de certificat*	Available on request
Notifizierte Stelle *Notified Body / Organisme notifié*	BUREAU VERITAS Consumer Products Services Germany GmbH, Wilhelm-Hennemann-Straße 8, 19061 Schwerin, Germany
Kennnummer *Identification no. / N° d'identification*	2004

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2. Richtlinie
Directive / Directive

Name *Name / Nom*	EMC 2014/30/EU
Konformitätsbewertungsverfahren *Conformity assessment procedure / Procédure d'évaluation de la conformité*	Mod. A
Datum der Erstanbringung des CE-Zeichens auf dem Produkt *Date of first application of the CE mark to the product / Date de 1ère application du sigle sur le produit*	2002

Angewendete Normen/Spezifikationen
Standards/Specifications applied / Normes/Spécifications appliquées

Referenz *Reference / Référence*	**Ausgabe** *Edition / Édition*	**Bemerkung** *Comment / Remarque*
EN 61326-1	2013	
EN 61326-2-3	2013	

Gültig für Typ
Valid for Type / Valable pour le type

All types with build-in electronic signal transmitter.

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9 Declaration of conformity

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3. Richtlinie
Directive / Directive

Name *Name / Nom*	RoHS 2011/65/EU
Konformitätsbewertungsverfahren *Conformity assessment procedure / Procédure d'évaluation de la conformité*	Mod. A
Datum der Erstanbringung des CE-Zeichens auf dem Produkt *Date of first application of the CE mark to the product / Date de 1ère application du sigle sur le produit*	2017

Angewendete Normen/Spezifikationen
Standards/Specifications applied / Normes/Spécifications appliquées

Referenz *Reference / Référence*	**Ausgabe** *Edition / Édition*	**Bemerkung** *Comment / Remarque*
VDK Umweltrelevante Aspekte bei der Produktentwicklung und -gestaltung	V1	

Gültig für Typ
Valid for Type / Valable pour le type

All types with build-in electronic signal transmitter.

9 Declaration of conformity

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Aussteller
Issued by / Etabli par

JUMO GmbH & Co. KG

Ort, Datum
Place, date / Lieu, date

Fulda, 2023-05-10

Rechtsverbindliche Unterschriften
Legally binding signatures /
Signatures juridiquement valable

Bereichsleitung Globaler Vertrieb
i. V. Markus Belmer

Qualitätsbeauftragter und Leiter Qualitätswesen
i. V. Harald Gienger

9 Declaration of conformity

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EU-Konformitätserklärung

EU declaration of conformity / Déclaration UE de conformité

Produkt *Product / Produit* **Widerstandsthermometer Ex i** *Resistance thermometer Ex i / Thermomètre à résistance Ex i*	**Typ** *Type / Type* **90.2***.******	**Typenblatt** *data sheet / fiche technique* **9028****

Hersteller / Adresse
Manufacturer / Etabli par / Adress / Adresse

JUMO Mess- und Regeltechnik AG
Laubisrütistrasse 70, 8712 Stäfa, Switzerland

Wir erklären in alleiniger Verantwortung, dass das bezeichnete Produkt die Anforderungen der Europäischen Richtlinien erfüllt.
We hereby declare in sole responsibility that the designated product fulfills the requirements of the European Directives.
Nous déclare sous notre seule responsabilité que le produit remplit les Directives Européennes.

Richtline
Directive / Directive

ATEX Richtlinie 2014/34/EU
ATEX Directive 2014/34/EU / Directive ATEX 2014/34/UE

Angewendete Normen
Standards applied / Normes appliqués
EN 60079-0:2018
EN 60079-11:2012
EN 60079-26:2015
EN ISO/IEC 80079-34:2018

Die Konformität wird durch die Einführung der neuen harmonisierten Norm EN 60079-0:2018 nicht beeinflusst
Conformity is not affected by the introduction of the new harmonised standard EN 60079-0:2018
La conformité n'est pas affectée par l'introduction de la nouvelle norme harmonisée EN 60079-0:2018

EU-Baumusterprüfbescheinigung
Type examination Certificate / Attestation d'examen de Type

SEV 13 ATEX 0197

Benannte Stelle
Notified body / Organisme notifié

Eurofins Electrosuisse Product Testing AG

Kennnummer
Identification no. / N° d'identification

1258

Anerkannte Qualitätssicherungssyteme der Produktion
Recognized quality assurance systems of production
Systèmes de qualité reconnus de production

SEV 18 ATEX 4120

Benannte Stelle
Notified body / Organisme notifié

Eurofins Electric and Electronic Product Testing AG

Kennnummer
Identification no. / N° d'identification

1258

Aussteller
Issued by / Etabli par

JUMO Mess- und Regeltechnik AG
Laubisrütistrasse 70, 8712 Stäfa, Switzerland

Ort, Datum
Place, date / Lieu, date

Stäfa, 30.01.2023

Rechtsverbindliche Unterschrift
Legally binding signature /
Signature juridiquement valable

CEO
Schlittler René

9 Declaration of conformity

JUMO Mess- und Regelgeräte GmbH

Pfarrgasse 48
1230 Wien, Austria

Tel: +43 1 61061-0
Fax.:+43 1 61061-40

E-mail: info.at@jumo.net
Internet: www.jumo.at

EU Konformitätserklärung

EU Declaration of Conformity / Déclaration CE de conformité

Dokument-Nr.
Document No / Document N°
CE 149

Hersteller
Manufacturer/ Etabli par
JUMO Mess- und Regelgeräte GmbH

Anschrift
Address / Adresse
Pfarrgasse 48
1230 Wien / Austria

Produkt
Product / Produit

Beschreibung
Typ /Serie

Widerstandsthermometer
90.2820/.../362/23
90.2821/.../362/23

Wir erklären in alleiniger Verantwortung, dass das bezeichnete Produkt die Schutzanforderungen der Europäischen Richtlinien erfüllt.
We hereby declare in sole responsibility that the designated product fulfils the safety requirements of the European directives.
Nous déclarons sous notre seule responsabilité que le produit remplit les directives européennes.

Richtlinie *Dirctive /Directive*		Datum der Erstanbringung des CE-Zeichens auf dem Produkt ***Date of first application of the CE mark to the product*** ***Date de 1ére application du sigle CE sur le produit***
2014/34/EU	ATEX-Richtlinie 2014/34/EU / *ATEX Directive 2014/34/EU / Directive ATEX 2014/34/UE*	07/2006

Der Nachweis erfolgt durch Baumuster-Prüfungen und / oder Normen
The conformity has been demonstrated through type examination and / or standards
Notification de l'évaluation relative á la Qualité de Production
Baumuster-Prüfungen
Type examination / Test échantillon

TÜV-A 06 ATEX 0004(X) – 1. - 5. Ergänzung
TÜV-A 06 ATEX 0005U – 1. - 3. Ergänzung

Anerkanntes Qualitätssicherungssystem der Produktion
Recognized quality assurance systems used in production / Organisme notifié agréé

to / suivant Notified body : TÜV Austria, Deutschstrasse 10, 1230 Wien, Austria
Kennummer CE 0408, Zertifikatnummer TÜV-A 21 ATEX 3008 Q
Identification No. CE 0408, Notification No. TÜV-A 21 ATEX 3008 Q
N° d'identification CE 0408, N° de signification TÜV-A 21 ATEX 3008 Q

Angewendete Normen
Standards applied / Normes appliquées
EN IEC 60079-0:2018
EN 60079-11:2012
EN 60079-26:2015
EN ISO/IEC 80079-34:2020

Aussteller:
Issued by: / Etabli par:

Firma / *Company / Société*
JUMO Mess- und Regelgeräte GmbH
Pfarrgasse 48; 1230 Wien, Austria

Ort, Datum
Place, date / Lieu, date:

Wien, 01.06.2023

Rechtsverbindliche Unterschrift
Legally binding signature
Signature juridiquement valable

Leitung Produktion
Head of production
Direction du production

i.Vm. Wolfgang Seidl

10 Type examination certificate

The type examination certificate can be viewed and downloaded on the homepage under the relevant product group number.

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Fax: +49 661 6003-607
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JUMO House
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Fax: +44 1279 62 50 29
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