

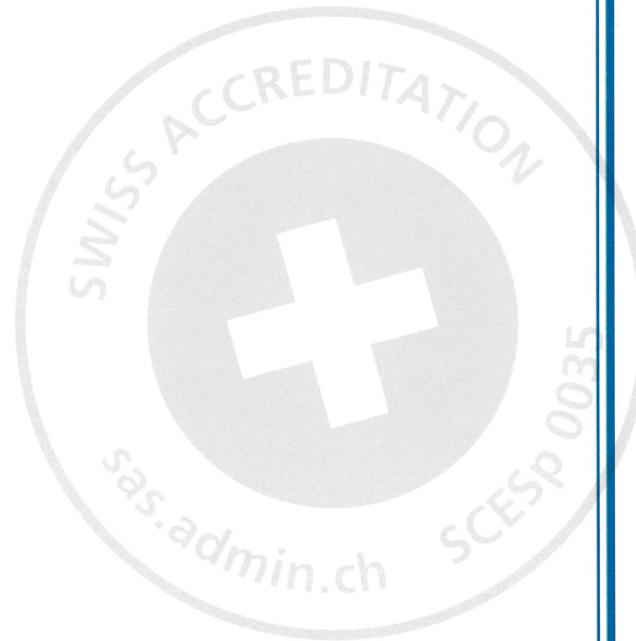


IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.:	IECEX SEV 15.0006	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2018-06-18)
Date of Issue:	2022-10-25		Issue 1 (2015-11-20)
Applicant:	JUMO GmbH & Co. KG Moritz-Juchheim-Strasse 1 36039 Fulda Germany		Issue 0 (2015-10-01)
Equipment:	Resistance thermometer		
Optional accessory:	---		
Type of Protection:	d, i, t		
Marking:	For details see Annexe to certificate.		



Approved for issue on behalf of the IECEX
Certification Body:

Martin Plüss

Position:

Manager Product Certification

Signature:
(for printed version)

Date:
(for printed version)

2022-10-25

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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.



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Luppenstrasse 3
8320 FEHRALTORF .
Switzerland



E&E



IECEX Certificate of Conformity

Certificate No.: **IECEX SEV 15.0006**

Page 2 of 4

Date of issue: 2022-10-25

Issue No: 3

Manufacturer: **JUMO GmbH & Co. KG**
Moritz-Juchheim-Strasse 1
36039 Fulda
Germany

Manufacturing locations: **JUMO GmbH & Co. KG**
Moritz-Juchheim-Strasse 1
36039 Fulda
Germany

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-26:2021-02 Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection
Edition:4.0

IEC 60079-31:2022-01 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

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:

[CH/SEV/ExTR18.0015/01](#)

Quality Assessment Report:

[DE/TUN/QAR13.0005/09](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX SEV 15.0006**

Page 3 of 4

Date of issue: 2022-10-25

Issue No: 3

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Resistance thermometers from JUMO type 902820/**/***362***are intrinsically safe electrical equipment with one resistor element for connection to a certified intrinsically safe circuit, and serve for temperature measurement in potentially explosive atmospheres.

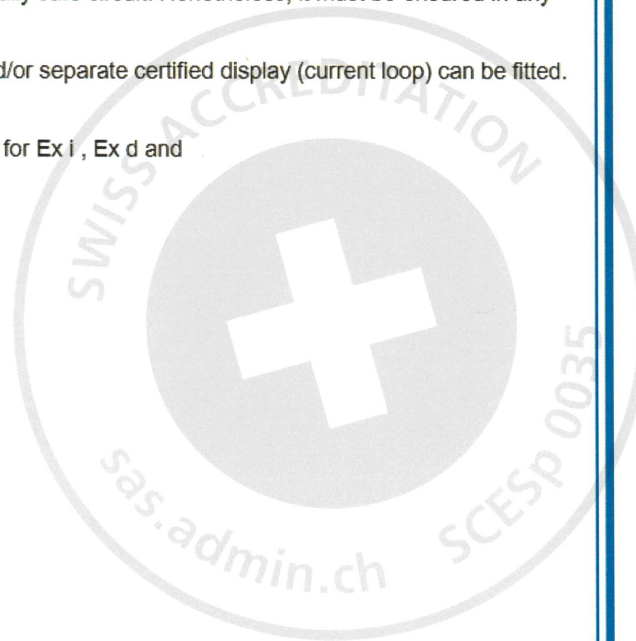
Alternatively, a separately certified connection head in type of protection "Ex db IIC" and "Ex tb IIIC, type XD-AD or type XD-SD or other connection head with equivalent certification, with separately certified cable entry, in type of protection "Ex db IIC" and "Ex tb IIIC" is also used. The flameproof types "Ex db IIC" do not have to be connected to an intrinsically safe circuit. Nonetheless, it must be ensured in any event that heating of the thermometer is limited.

A separate certified head transmitter is or can be installed in the connection head and/or separate certified display (current loop) can be fitted. They must be connected to a certified intrinsically safe circuit.

The various types must be designed according to the " General design requirements for Ex i , Ex d and Ex t" – drawing number 90282000A47Z001K000.

For details see Annexe to certificate.

SPECIFIC CONDITIONS OF USE: NO





IECEX Certificate of Conformity

Certificate No.: **IECEX SEV 15.0006**

Page 4 of 4

Date of issue: 2022-10-25

Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Update to new standard edition

Annex:

[IECEX SEV 15.0006 Annexe Issue 3_1.pdf](#)



Annexe to: IECEx SEV 15.0006

Issue No.: 3

page 1 of 5

Applicant Name: Jumo GmbH & Co. KG

Electrical Apparatus: Resistance thermometer

Description of the equipment

The JUMO type 902820/***/***362*** resistance thermometers are intrinsically safe electric apparatuses with a resistor element for connection to a certified, intrinsically safe electric circuit for measuring the temperature in a potentially explosive atmosphere.

Alternatively, a separately certified connecting head with separately certified cable inlet ("Ex d IIC" and "Ex tb IIIC" type of ignition protection) is used. It is not obligatory to connect the design in an "Ex d IIC" pressure-resistant casing to an intrinsically safe electric circuit. Still, it must be ensured that heating of the thermometer is limited.

A separately certified head-mounted measuring converter is or can be installed in the connecting head. If a different separately certified measuring converter is installed, this must be verified.

The design variants are compiled in accordance with the "General Design Specification for Ex i, Ex d and Ex t" drawing number 90282000A47Z001K000. This design specification is not exhaustively described.

Rated ambient temperature range

Depends on the device configuration and is defined in the type drawings, and datasheets.

Ratings

measurement and supply circuit of Ex i resistance thermometers

In type of protection intrinsically safe: Ex ia IIC, Ex ib IIC only to connect to an certified intrinsically safe circuit:

Maximum ratings:

U_i	$\leq 30 \text{ V}$
I_i	$\leq 100 \text{ mA}$
P_i	$\leq 750 \text{ mW}$
C_i	$= 0$
L_i	$= 0$

The maximum values of the allowable external capacitance (C_a or C_o) and inductance (L_a or L_o) can be found on the nameplate or the certificate of the supply unit.

or

measurement and supply circuit of Ex i resistance thermometers for dust applications

In type of protection intrinsically safe: Ex ia IIIC, Ex ib IIIC only to connect to an certified intrinsically safe circuit:

Maximum ratings:

U_i	$\leq 30 \text{ V}$
I_i	$\leq 100 \text{ mA}$
P_i	$\leq 750 \text{ mW}$
C_i	$= 0$
L_i	$= 0$

The maximum values of the allowable external capacitance (C_a or C_o) and inductance (L_a or L_o) can be found on the nameplate or the certificate of the supply unit.

Or

measurement and supply circuit of Ex d
resistance thermometers

In type of protection flameproof: Ex d IIC

Maximum ratings:

$U_{max} \leq 30 \text{ V}$

$I_{max} \leq 100 \text{ mA}$

$P_{max} \leq 750 \text{ mW}$

Appropriate measures shall be taken to ensure that the above values even in case of failure of the measuring and supply circuits are not exceeded.

Or

measurement and supply circuit of Ex t
resistance thermometers for dust applications

In type of protection by enclosure: Ex tb IIIC

Maximum ratings:

$U_{max} \leq 30 \text{ V}$

$I_{max} \leq 100 \text{ mA}$

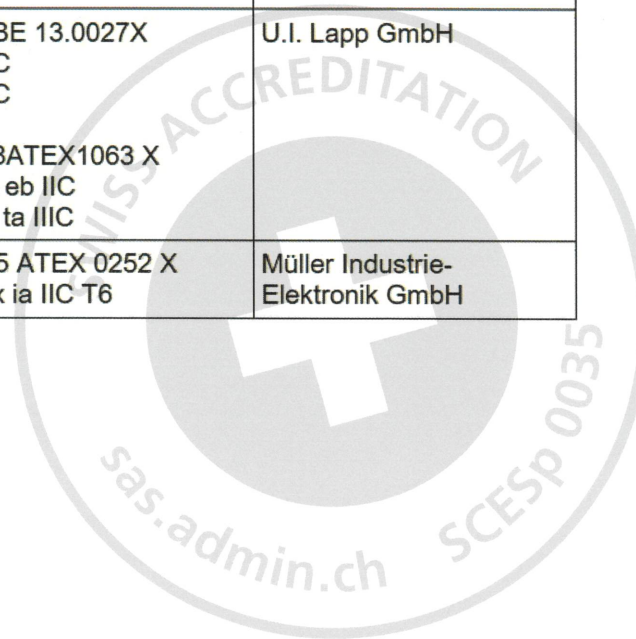
$P_{max} \leq 750 \text{ mW}$

Appropriate measures shall be taken to ensure that the above values even in case of failure of the measuring and supply circuits are not exceeded.

Used certified components			
Description:	Ident. No.:	Certificate / Marking:	Manufacturer:
Connection head	Type XD-A**	IECEX FTZU 14.0003U Ex db IIC Gb Ex tb IIIC Db FTZU 03 ATEX 0074U II 2G Ex db IIC Gb II 2D Ex tb IIIC Db	Limatherm Components Sp. Z.o.o.
Connection head	Type XD-S**	IECEX FTZU 17.0008U Ex db I Mb Ex db IIC Gb Ex tb IIIC Db FTZU 14 ATEX 0004U I M2 Ex db I Mb II 2G Ex db IIC Gb II 2D Ex tb IIIC Db	Limatherm Components Sp. Z.o.o.

Used certified components			
Description:	Ident. No.:	Certificate / Marking:	Manufacturer:
Compression Type Cable Gland	A Range of Cable Glands with Compression Seals	IECEX CML 19.0045X Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db CML 19ATEX1167X II 2G D Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db	Hawke International
Compression Type Cable Gland	Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands	IECEX CML 18.0131X Ex db IIC Gb Ex eb IIC Gb Ex tb III C Db IP66 Ex nR IIC Gc CML 18ATEX1268X II 2G D Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db	Hawke International
Temperature transmitter	Type dTRANS T07	IECEX EPS 17.0075 Ex ia IIC T6...T4 Ga Ex ia IIC T6...T4 Gb Ex ib [ia Ga] IIC T6...T4 Gb EPS 17 ATEX 1129X II 1G Ex ia IIC T6...T4 Ga II 2G Ex ia IIC T6...T4 Gb II 2(1)G Ex ib [ia Ga] IIC T6...T4 Gb	Jumo GmbH & Co. KG
Display module	Type dTRANS T07 BD7	IECEX EPS 18.0048X Ex ia IIC T6...T4 Gb EPS 18 ATEX 1113X II 2G Ex ia IIC T6...T4 Gb	Jumo GmbH & Co. KG
Temperature transmitter	Type iTEMP TM82- **A1/2/** and TMT82- **A3/4/5**	IECEX EPS 17.0039X Ex ia IIC T6...T4 Ga Ex ia IIC T6...T4 Gb Ex ib [ia Ga] IIC T6...T4 Gb EPS 17 ATEX 1074X II 1G Ex ia IIC T6...T4 Ga II 2G Ex ia IIC T6...T4 Gb II 2(1)G Ex ib [ia Ga] IIC T6...T4 Gb	Endress+Hauser Wetzler GmbH & Co. KG

Used certified components			
Description:	Ident. No.:	Certificate / Marking:	Manufacturer:
Display	Type TID10-.. and OTID10-..	IECEX PTB 09.0013 Ex ia IIC T6...T4 Gb PTB 08 ATEX 2007 II 2 G Ex ia IIC T6...T4 Gb	Endress+Hauser Wetzler GmbH & Co. KG
Cable entries	Type SKINTOP K-M / KR-M / ATEX plus and SKINTOP SDV-M / SDVR-M / ATEX	IECEX IBE 13.0027X Ex eb IIC Ex ta IIIC IBExU08ATEX1063 X II 2G Ex eb IIC II 1D Ex ta IIIC	U.I. Lapp GmbH
Current loop display	Type CL1.....-..., CL6.....-... and CM1.....-...	ZELM 05 ATEX 0252 X II 2 G Ex ia IIC T6	Müller Industrie-Elektronik GmbH



Annexe to:

IECEX SEV 15.0006

Issue No.: 3

page 5 of 5

Marking**Versions "Ex ia" with separation elements TZ292**

Ex ia IIC T6 ... T1 Ga/Gb

Ex ia IIIC T80°C ... T400°C Da/Db

Versions "Ex ib" with separation elements TZ292

Ex ib IIC T6 ... T1 Ga/Gb

Ex ib IIIC T80°C ... T400°C Da/Db

Versions "Ex ia" without separation elements

Ex ia IIC T6 ... T1 Ga/Gb

Ex ia IIIC T80°C ... T400°C Da/Db

Versions "Ex ib" without separation elements

Ex ib IIC T6 ... T1 Gb

Ex ib IIIC T80°C ... T400°C Db

Versions "Ex ia" without separation elements with connection head "Ex db IIC", "Ex tb IIIC"

Ex ia/db IIC T6 ... T1 Ga/Gb

Ex ia/tb IIIC T80°C ... T400°C Da/Db

Versions "Ex ib" without separation elements with connection head "Ex db IIC", "Ex tb IIIC"

Ex ib/db IIC T6 ... T1 Gb

Ex ib/tb IIIC T80°C ... T400°C Db

Versions without separation elements, with connection head "Ex db IIC", "Ex tb IIIC"

Ex db IIC T6 ... T1 Gb

Ex tb IIIC T80°C ... T400°C Db

Versions with separation elements TZ292 and connection head "Ex db IIC", "Ex tb IIIC"

Ex db IIC T6 ... T1 Ga/Gb

Ex ia/db IIC T6 ... T1 Ga/Gb*

Ex ib/db IIC T6 ... T1 Ga/Gb*

Ex tb IIIC T80°C ... T400°C Da/Db

Ex ia/tb IIIC T80°C ... T400°C Da/Db *

Ex ib/tb IIIC T80°C ... T400°C Da/Db *

* Or the combination of both

(* Note: when using connection head and power supply via certified intrinsically safe circuit!)

