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 TUN 19.0005X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2020-05-11)
Date of Issue:	2023-06-07		
Applicant:	**JUMO GmbH & Co. KG** Moritz-Juchheim-Straße 1 36039 Fulda **Germany**		
Equipment:	**Temperature transmitter**		
Optional accessory:	JUMO dTRANS T06 Ex type 707075 / a-bb-ccc		
Type of Protection:	**Intrinsic safety "ia" (IEC 60079-11: 2011); Control of ignition sources "b" (ISO 80079-37: 2016)**		
Marking:	**[Ex ia Ga] IIC or** **[Ex ia Da] IIIC or** **[Ex h Ga] IIC or** **[Ex h Da] IIIC**		

Approved for issue on behalf of the IECEx Certification Body: **Thomas Heinen**

Position: **Deputy Head of IECEx Certification Body**

Signature: (for printed version)

Date: (for printed version)

TÜVNORD Digital unterschrieben von Heinen Thomas Datum: 2023.06.07 11:37:54 +02'00'

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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.

Certificate issued by:

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1, 30519 Hannover
Germany

TÜV NORD

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Manufacturer: **JUMO GmbH & Co KG**
Moritz-Juchheim-Straße 1, 36039 Fulda
Germany

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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
ISO 80079-36:2016 Edition:1.0	Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic methods and requirements
ISO 80079-37:2016 Edition:1.0	Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"

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 Reports:

DE/TUN/ExTR19.0007/00 DE/TUN/ExTR19.0007/01

Quality Assessment Report:

DE/EPS/QAR23.0003/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Description od product:

The temperature transmitter JUMO dTRANS T06 Ex, type 707075 / a-bb-ccc is used for temperature measurement and temperature monitoring by means of resistance thermometers or thermocouples. It is designed for mounting on a carrier rail outside the hazardous area.

The intrinsically safe sensor circuit is safely galvanically isolated from the non-intrinsically safe circuits up to a voltage of 375 V.

Type code and Electrical data:

See attachment to IECEx TUN 19.0005 issue No.1

Thermal data:

Permissible ambient temperature range -10 °C ≤ Ta ≤ +70 °C

SPECIFIC CONDITIONS OF USE: YES as shown below:
For applications that require EPL Ga or EPL Da devices, the measurement signal transmitter must be used redundantly (HFT > 0).

Only for applications that require EPL Gb or EPL Db devices, the measurement signal transmitter is used as single-channel (HFT = 0).

This refers to equipment which does not provide an ignition source in fault-free operation, but has no fault tolerance with regard to ignition protection.

For alternative concepts / applications, the requirements / options according ISO 80079-37 have to be taken into account.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The QAR No. DE/TUN/QAR13.0005 has been replaced by DE/EPS/QAR 23.0003

Annex:

Attachment to IECEx TUN 19.0005X issue No.1.pdf

TÜV NORD CERT GmbH
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Germany

Attachment to IECEx TUN 19.0005X issue No.:1

Description:
The temperature transmitter JUMO dTRANS T06 Ex, type 707075 / a-bb-ccc is used for temperature measurement and temperature monitoring by means of resistance thermometers or thermocouples. It is designed for mounting on a carrier rail outside the hazardous area.
The intrinsically safe sensor circuit is safely galvanically isolated from the non-intrinsically safe circuits up to a voltage of 375 V.

Type code:
707075 / a - bb - ccc

Extra codes
000: Without extra code
053: RS485-interface Modbus RTU

Power supply
29: 24 V d.c., +10/-15 %, SELV or PELV

Version
8: Standard with factory settings
9: Customized configuration

Basic type

Electrical data:

Power supply (Terminals X401: L1_N_L+_L-)	Only for the connection to a non-intrinsically safe circuit with a safety-related maximum voltage of: U_N = 24 V d.c., +10/-15 %, SELV or PELV U_m = 250 V
Analogue output (Terminals X201: 41_42_43_44)	Only for the connection to a non-intrinsically safe circuit with a safety-related maximum voltage of: U_m = 250 V
RS485 circuit (Terminals X601: 31_32_33_34)	Only for the connection to a non-intrinsically safe circuit with a safety-related maximum voltage of: U_m = 250 V
USB Stromkreis (Terminals X303: 1_2_3_4_5)	Only for the connection to a non-intrinsically safe circuit with a safety-related maximum voltage of: U_m = 250 V
Sensor circuit (Terminals X101: 51_52_53_54)	In type of protection intrinsic safety Ex ia IIC resp. Ex ia IIIC Maximum values: U_o = 6 V I_o = 13.3 mA P_o = 19.9 mW Characteristic line: linear The effective internal capacitance C_i = 680 nF The effective internal inductance L_i is negligibly small.

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The maximum permissible values for the external inductance L_o and the external capacitance C_o have to be taken from the following table:

Ex ia IIC	L_o [mH]	100	50	20	10	0.2	0.02
	C_o [µF]	0.62	0.82	1.12	1.22	3.32	7.32
Ex ia IIIC	L_o [mH]	100	50	20	10	0.2	0.02
	C_o [µF]	9.32	10.32	11.32	12,32	30.32	79.32

The values of the table below are only applicable, if the internal inductance L_i (without the cable) or the internal capacitance C_i (without the cable) of the connected device is ≤ 1 % of the below specified values.
If L_i (without the cable) and C_i (without the cable) of the connected device are > 1 % of the specified values, the specified values of L_o shall be reduced to 50 %.
The reduced capacitance of the external circuit (including cable) shall not exceed 1 µF for group IIIC and 600 nF for group IIC.

Ex ia	IIC	IIIC
Maximum permissible external inductance	0.2 H	0.8 H
Maximum permissible external capacitance	39.32 µF	999.32 µF

Thermal data:
Permissible ambient temperature range during operation: -10 °C ≤ Ta ≤ +70 °C

Specific Conditions of Use:
For applications that require EPL Ga or EPL Da devices, the measurement signal transmitter must be used redundantly (HFT > 0).
Only for applications that require EPL Gb or EPL Db devices, the measurement signal transmitter is used as single-channel (HFT = 0).
This refers to equipment which does not provide an ignition source in fault-free operation, but has no fault tolerance with regard to ignition protection.
For alternative concepts / applications, the requirements / options according to ISO 80079-37 have to be taken into account.