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 21.0011X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2021-06-10)
Date of Issue:	2023-04-27		
Applicant:	**JUMO GmbH & Co KG** Moritz-Juchheim-Straße 1, 36039 Fulda **Germany**		
Equipment:	**Pressure transducer , Type: JUMO MIDAS S22 Ex 404720 / 000 - *** - 405 - *** - 20 - ******		
Optional accessory:			
Type of Protection:	**ib**		
Marking:	Ex ib IIC T6 ... T4 Gb Ex ib IIIC T70 °C ... T100 °C Db		

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

Position: **Manager Product Certification**

Signature: (for printed version) Köhntopp

Date: (for printed version) 2023-04-27

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:

Eurofins Electric & Electronic Product Testing AG
Luppmenstrasse 3
8320 FEHRALTORF .
Switzerland

eurofins | E&E

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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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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

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/ExTR21.0012/00

Quality Assessment Report:

DE/EPS/QAR23.0003/00

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

The pressure transducer JUMO MIDAS S22 Ex type 404710 / 000 - *** - 405 - *** - 20 - ** serves for converting a physical measured quantity (pressure) into a standardised electrical signal (current signal 4 ... 20 mA). It is intended for use within potentially explosive areas.
The intrinsically safe circuit is connected with a non-detachable (cable length in plain text) or circular connector M12 x 1.

Measuring and supply circuit with the type of protection intrinsic safety
Ex ib IIC
Ex ib IIIC

Only for connection to a certified intrinsically safe circuit.

Classification of installation and use:	stationary
Ingress protection:	IP65
Rated ambient temperature range (°C):	Equipment protection level Gb Ambient temperature: T4: -40 °C to +85 °C T5: -40 °C to +70 °C T6: -40 °C to +55 °C Equipment protection level Db maximum surface temperature: T100 °C: -40 °C to +85 °C T85 °C: -40 °C to +70 °C T70 °C: -40 °C to +55 °C
Rated ambient temperature range (°C) for Ex Components	N/A

SPECIFIC CONDITIONS OF USE: YES as shown below:

- For details concerning the admissible ambient temperatures and temperature classes please refer to the user's manual.
- The pressure transducer shall be supplied by a circuit of Overvoltage category I.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Change of ExCB for quality system. Link to QAR updated.

Annex:

IECEx SEV 21.0011 Annexe i1.pdf

Annexe to: **IECEx SEV 21.0011X** **Issue No.: 1**

Applicant Name: **JUMO GmbH & Co. KG**
Moritz-Juchheim-Strasse 1, 36039 Fulda, GERMANY

Electrical Apparatus: **Pressure transducer**

Rating:

Input and supply circuits:
With type of protection intrinsic safety Ex ib IIC and IIIC.
Only for connection to certified intrinsically safe circuit.

Maximum values for circular connector M12x1 and special electrical connection:

Ui ≤ 28 V
Ii ≤ 100 mA
Pi ≤ 750 mW
Ci = 10.4 nF (effective internal capacitance)
Li ≈ 0 uH (effective internal inductance)

Maximum values for electrical connection with non-detachable cable:

Ui ≤ 28 V
Ii ≤ 100 mA
Pi ≤ 750 mW
Ci ≤ 10.4 nF + 107 pF/m • cable length
Li ≤ 1 uH/m • cable length

Eurofins Electric & Electronic Product Testing AG
Swiss Certification Body

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Type designation:

Example of type designation 404720/000 - 543 - 405 - 507 - 20 - 36 / 000
(1) (2) (3) (4) (5) (6) (7) (8)

(1) Basic type
404720 JUMO MIDAS S22 Ex – Pressure transducer for use in potentially explosive atmospheres

(2) Basic type changes
/000 None

(3)* Pressure rated measuring range
480 -1 to +1.5 bar relative pressure
481 -1 to +3 bar relative pressure
482 -1 to +5 bar relative pressure
483 -1 to +9 bar relative pressure
456 0 to 2.5 bar relative pressure
457 0 to 4 bar relative pressure
458 0 to 6 bar relative pressure
459 0 to 10 bar relative pressure
460 0 to 16 bar relative pressure
461 0 to 25 bar relative pressure
462 0 to 40 bar relative pressure
463 0 to 60 bar relative pressure
464 0 to 100 bar relative pressure
463 0 to 60 bar relative pressure
464 0 to 100 bar relative pressure
490 0 to 2.5 bar absolute pressure
491 0 to 4 bar absolute pressure
492 0 to 6 bar absolute pressure
493 0 to 10 bar absolute pressure
494 0 to 16 bar absolute pressure
495 0 to 25 bar absolute pressure
505 0 to 40 bar absolute pressure
506 0 to 60 bar absolute pressure
507 0 to 100 bar absolute pressure
998 special measuring range for absolute pressure
999 special measuring range for relative pressure

(4) Electrical output
405 4 to 20 mA. two-wire

(5)* Process connection
480 M12x1 inside
481 M12x1 with protection cap
502 G 1/4 according to DIN EN 837
507 M14x0.75 flush with front
530 M8 (x1) according to DIN 3852-1
531 M10 (x1) according to DIN 3852-2
532 M12 (x1.5) according to DIN 3852-3
544 7/16-20 UNF-2A
561 G 1/4 flush with front, two-times sealing
562 7/16-20 UNF SAE J514
999 according to customer specification

(6) Material of process connection
20 CrNi (stainless steel)

(7) Electrical connection
11 attached cable
36 round plug M12×1

(8)* Additional options
000 without
462 inverted output signal
591 choking coil in pressure channel
624 free from oil and grease
630 widened pressure channel

*) The numerical type keys can be extended with values not named here in the sense of the basic test. These extensions have no effect on the explosion protection and general safety.