



## UK - Type Examination Certificate

- (1)
- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – **UKSI 2016:1107 (as amended)**

- (3) UK - Type Examination Certificate Number

**EPS 22 UKEX 1 088 X**

**Revision 0**

- (4) Equipment: Pressure transducer JUMO MIDAS S21 Ex 404710 / 000 - \*\*\* - 405 - \*\*\* - 20 - \*\*

- (5) Manufacturer: JUMO GmbH & Co. KG

- (6) Address: Moritz-Juchheim-Straße 1  
36039 Fulda  
Germany

- (7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

- (8) Bureau Veritas Consumer Products Services United Kingdom Limited, approved body No. 8507 in accordance with UKSI 2016:1107 (as amended) Part 4, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Schedule 1 of UKSI 2016:1107 (as amended). The examination and test results are recorded in the confidential documentation under the reference number 22TH0288.

- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN IEC 60079-0:2018**

**EN 60079-11:2012**

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

- (11) This UK - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with UKSI 2016:1107 (as amended). Further requirements apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

- (12) The marking of the equipment shall include the following:



II 2G Ex ib IIC T4...T6 Gb

II 2D Ex ib IIIC T70°C...T100°C Db



Certification department of explosion protection

Warrington, 31-07-2023

*N. Wilkinson*  
Natalie Wilkinson



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ZERT-0003-GBR-ZE-EX-V03 / TEMP-0005-GBR-ZE-EX-V01

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(13)

## Annex

(14) **UK - Type Examination Certificate EPS 22 UKEX 1 088 X**

**Revision 0**

(15) Description of equipment:

The pressure transducer JUMO MIDAS S21 Ex type 404710 / 000 - \*\*\* - 405 - \*\*\* - 20 - \*\* serves for converting a physical measured quantity (pressure) into a standardized 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), circular connector M12x1 or a special electrical connection.

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.

### Rating:

Input and supply circuits:

With type of protection intrinsic safety Ex ib IIC

Only for connection to certified intrinsically safe circuit.

Maximum values for circular connector M12x1 and special electrical connection:

$U_i \leq 28 \text{ V}$   
 $I_i \leq 100 \text{ mA}$   
 $P_i \leq 750 \text{ mW}$   
 $C_i \leq 10.4 \text{ nF}$  (effective internal capacitance)  
 $L_i \approx 0 \text{ uH/m}$  (effective internal inductance)

Maximum values for electrical connection with non-detachable cable:

$U_i \leq 28 \text{ V}$   
 $I_i \leq 100 \text{ mA}$   
 $P_i \leq 750 \text{ mW}$   
 $C_i \leq 10.4 \text{ nF} + 100 \text{ pF/m} \cdot \text{cable length}$   
 $L_i \leq 1 \text{ uH/m} \cdot \text{cable length}$

### Type designation:

Example of type designation 404710/000 - 459 - 405 - 504 - 20 - 11 / 000

(1) (2) (3) (4) (5) (6) (7)

### (1) Basic type

404710/000 JUMO MIDAS S21 Ex – Pressure transducer for use in potentially explosive atmospheres

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## UK - Type Examination Certificate EPS 22 UKEX 1 088 X

Revision 0

### (2)\* Pressure rated measuring range

- 432 0 to 30 bar relative pressure
- 451 0 to 0.25 bar relative pressure
- 452 0 to 0.4 bar relative pressure
- 453 0 to 0.6 bar relative pressure
- 454 0 to 1 bar relative pressure
- 455 0 to 1.6 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
- 475 -0.25 to 0 bar relative pressure
- 476 -0.4 to 0 bar relative pressure
- 477 -0.6 to 0 bar relative pressure
- 478 -1 to 0 bar relative pressure
- 479 -1 to +0.6 bar relative pressure
- 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
- 484 -1 to +15 bar relative pressure
- 485 -1 to +24 bar relative pressure
- 487 0 to 0.6 bar absolute pressure
- 488 0 to 1 bar absolute pressure
- 489 0 to 1.6 bar absolute 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
- 998 special measuring range for absolute pressure
- 999 special measuring range for relative pressure

### (3) Electrical output

- 405 4 to 20 mA. two-wire

### (4)\* Process connection

- 502 G 1/4 according to DIN EN 837
- 504 G 1/2 according to DIN EN 837
- 511 1/4-18 NPT according to DIN EN 837
- 512 1/2-14 NPT according to DIN EN 837
- 521 G 1/4 according to DIN 3852-11
- 523 G 1/2 according to DIN 3852-11
- 563 7/16-20 UNF inside with vent core pusher
- 583 M20 x 1.5 with stud
- 999 according to customer specification

### (5) Material of process connection

- 20 CrNi (stainless steel)

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**Revision 0**

**(6) Electrical connection**

- 11 attached cable
- 24 loose stranded wires
- 36 round plug M12×1
- 61 cable socket DIN EN 175301-803 form A
- 99 special electrical connection

**(7)\* 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.

(16) Reference number: 22TH0288

(17) Special conditions for safe use:

For details concerning the admissible ambient temperatures and temperature classes please refer to the user's manual.

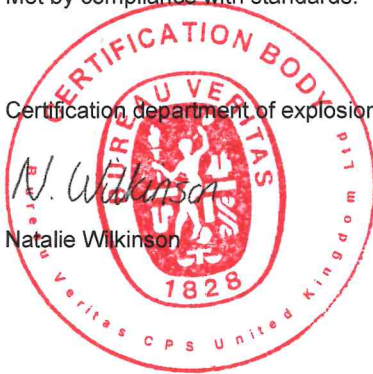
The sensor with the connector cable socket (NTS 61) may only be used for gas applications.

(18) Essential health and safety requirements:

Met by compliance with standards.

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