



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 1 369 X

Revision 1

(4) Equipment: Process pressure transmitter
JUMO dTrans p20 type 403025 or
JUMO dTrans p20 DELTA type 403022

(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 22TH0506.

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

EN IEC 60079-0:2018

EN 60079-11:2012

EN 60079-26:2015

(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 1/2G Ex ia IIC T6... T3 Ga/Gb

(for type 403025)

II 1/2D Ex ia IIIC T105°C Da/Db



II 1G Ex ia IIC T4 Ga

(for DELTA type 403022)

II 1D Ex ia IIIC T200/125°C Da

Certification department of explosion protection

Warrington, 11-06-2024

N. Wilkinson
Natalie Wilkinson

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(13)

Annex

(14) **UK - Type Examination Certificate EPS 22 UKEX 1 369 X**

Revision 1

(15) Description of equipment:

The process pressure transmitter JUMO dTRANS p20 type 403025 or JUMO dTRANS p20 DELTA type 403022 serves for converting a physical measured quantity (pressure) into a standard electrical signal (4...20 mA). The device is intended for use within potentially explosive atmospheres. The stainless-steel enclosure of the pressure transmitter has the type of protection IP 66 according to IEC 60529. The pressure transmitter can be housed in three different types of enclosure.

The process pressure transmitter JUMO dTRANS p20 type 403025 or JUMO dTRANS p20 DELTA type 403022 is attached to tanks or pipes by means of a process connection. The pressure measuring cell serves for zone separation and is made of stainless steel, Hastelloy®, Monel, tantalum or titanium. This zone separation takes place by means of the diaphragm and subsequent flashback safe gap or the flashback safe gaps can also be integrated directly in the process connection upstream of the pressure measuring cell/pressure sensor.

Electrical data:

Input and supply circuits

with type of protection intrinsic safety Ex ia IIC
Only for connection to certified intrinsically safe circuits.
Maximum values:
 $U_i \leq 28 \text{ V}$
 $I_i \leq 115 \text{ mA}$
 $P_i \leq 750 \text{ mW}$
 $C_i = 6 \text{ nF}$ (effective internal capacitance)
 $L_i = 105 \mu\text{H}$ (effective internal inductance)

Or

Input and supply circuits

with type of protection intrinsic safety Ex ia IIIC
Only for connection to certified intrinsically safe circuits.
Maximum values:
 $U_i \leq 28 \text{ V}$
 $I_i \leq 115 \text{ mA}$
 $P_i \leq 750 \text{ mW}$
 $C_i = 6 \text{ nF}$ (effective internal capacitance)
 $L_i = 105 \mu\text{H}$ (effective internal inductance)

Rated ambient temperature range:

For JUMO dTRANS p20 Typ 403025:

Ambient temperature ¹⁾:

T6: -40 °C ...+50 °C
T5: -40 °C+65 °C
T4: -40 °C+85 °C
T3: -40 °C+85 °C ³⁾
T105 °C: -40 °C+60 °C ³⁾

Extended ambient temperature with additional type 681 ¹⁾ ²⁾:

T6: -50 °C+50 °C
T5: -50 °C+65 °C
T4: -50 °C+85 °C
T3: -50 °C+85 °C ³⁾
T105 °C: -50 °C+60 °C ³⁾

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UK - Type Examination Certificate EPS 22 UKEX 1 369 X

Revision 1

For JUMO dTRANS p20 DELTA Typ 403022:

Ambient temperature:

T4: -50 °C ... +60 °C¹⁾²⁾

T105 °C: -50 °C ... +60 °C³⁾

1) Restricted functions if lower than -20 °C: Stationary use, increased risk of cable break, display without function. Lower than -30 °C: the equipment is not possible to handle.

2) Between -40 °C to -50 °C the equipment must be permanently in operation and the cover with view window must be protected against to mechanical hit or impact. Please contact JUMO.

3) Only for high temperature version (measurement substance temperature 2).

(16) Reference number: 22TH0506

(17) Special conditions for safe use:

1. The intrinsically safe circuit must be limited to overvoltage category I as defined in IEC 60664-1 and the circuits must be supplied exclusively from a certified intrinsically safe power source with the protection level "ia".

2. Assignment between the maximum permissible ambient temperature in the electronics enclosure, measuring temperature and temperature class for the JUMO dTRANS p20 type 403025 process pressure transmitter is shown in the following table:

Temperature class	T6	T5	T4	T3
Maximum permissible temperature in top part of enclosure with electronics (°C)	-50 °C ... +50 °C	-50 °C ... +65 °C	-50 °C ... +85 °C	-50 °C ... +85 °C
Maximum permissible measuring temperature	+60 °C	+70 °C	+115 °C	+175 °C

3. Assignment between the maximum permissible ambient temperature in the electronics enclosure, measuring temperature and temperature class for the JUMO dTRANS p20 DELTA type 403022 process pressure transmitter is shown in the following table:

Temperature class	T4
Maximum permissible temperature in top part of enclosure with electronics (°C)	-50 °C ... +60 °C
Maximum permissible measuring temperature	+100 °C

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UK - Type Examination Certificate EPS 22 UKEX 1 369 X

Revision 1

4. Assignment between the maximum permissible ambient temperature in the electronics enclosure, measuring temperature and maximum surface temperature for the JUMO dTRANS p20 type 403025 process pressure transmitter is shown in the following table:

Surface temperature (°C)	T105°C
Maximum permissible temperature in top part of enclosure with electronics (°C)	-50 °C ... +60 °C
Maximum permissible measuring temperature	+100 °C

5. Assignment between the maximum permissible ambient temperature in the electronics enclosure, measuring temperature and maximum surface temperature for the JUMO dTRANS p20 DELTA type 403022 process pressure transmitter is shown in the following table:

Surface temperature (°C)	T200125°C
Maximum permissible temperature in top part of enclosure with electronics (°C)	-50 °C ... +60 °C
Maximum permissible measuring temperature	+100 °C

6. In the temperature range of -40 °C -50 °C the lid with inspection glass of the appliance has to be additionally protected against mechanical impact- respectively collision effect.

(18) Essential health and safety requirements:

Met by compliance with standards.



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