



(1) **EC-Type Examination Certificate**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**

(3) Examination certificate number: **SEV 09 ATEX 0138 X**

(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) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Electrosuisse SEV, notified body No. 1258 in accordance with article 9 of the Council Directive of the European Communities of 23 March 1994 (94/9/EC), certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment or protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The results of the examination are recorded in confidential report no. 09-IK-0103.01.
incl. extension 1 to 3

(9) Compliance with the essential health and safety requirements has been assured by compliance with:
EN 60079-0:12 + A11:13 EN 60079-11:12 EN 60079-26:15

(10) If the sign «X» is placed after the certificate number, it indicates that the equipment or protective system is subjected to special conditions for safe use specified in the schedule to this certificate.

(11) This examination certificate relates only to design and construction of the specified equipment in accordance with the directive 94/9/EC. Further requirements of this directive apply to the manufacturing process and the placing on the market of the equipment.

(12) The marking of the equipment shall include the following:
see Appendix page 5: (19) Marking

Electrosuisse
Notified Body ATEX

Martin Plüss
Product Certification



(13)

Appendix

(14)

EC-Type Examination Certificate

(15) Description of the 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 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.

Ratings:

Input and supply circuits

with type of protection intrinsic safety Ex ia IIC

only for connection to certified intrinsically safe circuits

Maximum values:

$U_i = 28 \text{ V}$

$I_i = 115 \text{ mA}$

$P_i = 750 \text{ mW}$

$C_i = 6 \text{ nF}$ (effective internal capacitance)

$L_i = 105 \text{ } \mu\text{H}$ (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:

$U_i = 28 \text{ V}$

$I_i = 115 \text{ mA}$

$P_i = 750 \text{ mW}$

$C_i = 6 \text{ nF}$ (effective internal capacitance)

$L_i = 105 \text{ } \mu\text{H}$ (effective internal inductance)

(16) Test Report

09-IK-0103.01 incl. extension 1 to 3

(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 ambient temperature in top part of enclosure with electronics (°C)	-50 ... +50	-50 ... +65	-50 ... +85	-50 ... +85
Maximum permissible measuring temperature (°C)	+60	+70	+115	+175

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

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

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

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) Fundamental essential health and safety requirements

Fulfilled by the standards applied.

(19) The marking of the equipment shall include the following:

Für JUMO dTRANS p20 Typ 403025:



II 1/2G Ex ia IIC T6 ... T3 Ga/Gb
II 1/2D Ex ia IIIC T105 °C Da/Db

resp.

Für JUMO dTRANS p20 DELTA Typ 403022:



II 1G Ex ia IIC T4 Ga
II 1D Ex ia IIIC T105 °C Da