



Translation

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

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 94/9/EC**

(3) **Certificate Number** TÜV 15 ATEX 172070

(4) for the equipment: Ex-separators type
VEGATRENN 141.*C/O/U*****
VEGATRENN 142.*C/O/U*****

(5) of the manufacturer: VEGA Grieshaber KG

(6) Address: Am Hohenstein 113
77761 Schiltach
Germany

Order number: 8000454733

Date of issue: 2016-02-15

(7) The design of this equipment or protective system and any acceptable variation thereto are specified in the schedule to this EC-Type-Examination Certificate and the documents therein referred to.


(8) The TÜV NORD CERT GmbH, notified body No. 0044 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 Annex II to the Directive. The examination and test results are recorded in the confidential report No. 16 203 172020.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012 EN 60079-11:2012

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

(11) This EC-type-examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:

 II (1) G [Ex ia Ga] IIC, II (1) D [Ex ia Da] IIIC, I (M1) [Ex ia Ma] I

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body



Meyer

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(13) **SCHEDULE**

(14) **EC-Type-Examination Certificate No. TÜV 15 ATEX 172070**

(15) Description of equipment

The Ex-separators type

VEGATRENN 141.*C/O/U*****

VEGATRENN 142.*C/O/U*****

are used for the supply of passive, intrinsically safe 4 ... 20 mA two wire measuring sensors, the safe galvanic separation of the intrinsically safe circuits from all non-intrinsically safe circuits and the signal transmission from 4... 20 mA sensors in the explosion hazardous area.

The Ex-separators are active with own supply.

The Ex-separators are executed with 1 or with 2 channels.

The permissible ambient temperature range is -20 °C ... +60 °C.

Electrical data

Supply circuit

(Terminals 16, 17)

$U = 24 \dots 230 \text{ V a. c. } -15 \%/+10 \%; 50 \text{ Hz} \dots 60 \text{ Hz}$

$U = 24 \dots 65 \text{ V d. c. } -15 \%/+10 \%$

$U_m = 253 \text{ V}$

Current output circuits

(Terminals

Channel 1: 10, 11; 12

Channel 2: 13, 14; 15)

4...20 mA, active

No load voltage: 16.5 V

$U_m = 253 \text{ V}$

Signal circuits

(Terminals

Channel 1: 1, 2

Channel 2: 4, 5)

in type of protection „Intrinsic Safety“ Ex ia IIC, IIB, I

Maximum values per circuit:

$U_o = 26.3 \text{ V}$

$I_o = 100 \text{ mA}$

$P_o = 658 \text{ mW}$

Characteristic line: linear

Effective internal capacitance: 1.2 nF

The effective internal inductances are negligibly small.

Ex ia	IIC	IIB	I
max. permissible ext. inductance	0.2 mH	2 mH	5 mH
max. permissible ext. capacitance	0.096 μF	0.33 μF	0.71 μF

The maximum values of the tables are also allowed to be used up to the permissible limits as concentrated capacitances and as concentrated inductances.

The values for IIC and IIB are also permissible for explosive dust atmospheres.

The intrinsically safe circuits are safe galvanically separated from the non-intrinsically safe circuits up to a peak value of the voltage of 375 V.

(16) The test documents are listed in the test report No. 16 203 172070.

(17) Special conditions for safe use

None

(18) Essential Health and Safety Requirements

no additional ones

