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 09 ATEX 555127**
(4)	for the equipment:	Signal conditioning instrument VEGAMET type MET391.C****
(5)	of the manufacturer:	VEGA Grieshaber KG
(6)	Address:	Am Hohenstein 113 D-77761 Schiltach
	Order number:	8000555127
	Date of issue:	2009-02-27

(7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this 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. 09 203 555127.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2006 EN 60 079-26:2004 EN 60079-11:2007
EN 61241-11:2006

(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:

Ex II (1) G [Ex ia] IIC II (1) D [Ex iaD] I (M1) [Ex ia] I

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited 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 certification body

Schwedt

Hanover office, Am TÜV 1, 30519 Hanover, Fon +49 (0)511 986 1455, Fax +49 (0)511 986 1590

(13) **SCHEDULE**

(14) **EC-Type Examination Certificate No. TÜV 09 ATEX 555127**

(15) Description of equipment

The signal conditioning instrument VEGAMET type MET391.C**** is an associated electrical apparatus and is used for the safe galvanic separation of the intrinsically safe circuit from all non-intrinsically safe circuits.
The apparatus supplies passive, intrinsically safe 0/4-20 mA two wire measuring value transducers and transforms the signals of the transducers into a normalized 0/4-20 mA output signal.
The output signal, the relay outputs and the communication via the digital interfaces are used for the control and monitoring of filling levels.

The maximum permissible ambient temperature is 60°C.

Electrical data

Supply voltage
(Connections Kl3[25, 26])

U = 20 ... 72 V d. c.
U = 20 ... 253 V a. c.
U_m = 253 V a. c.

Supply and signal circuit
(Connections Kl1[1, 2])

in type of protection „Intrinsic Safety" Ex ia IIC/IIB/I
max. values:

U_o = 24.2 V
I_o = 110 mA
P_o = 662 mW
characteristic line: linear

Ex ia	IIC		IIB		I	
max. permissible ext. inductance	0.2 mH	0.5 mH	0.5 mH	1.0 mH	0.5 mH	10 mH
max. permissible ext. capacitance	110 nF	82 nF	540 nF	460 nF	1000 nF	930 nF

With additionally connected VEGA interface converter VEGACONNECT type CONNECT.CX**
via HART-connecting cable
(Connections Kl1[3, 4])

Supply and signal circuit
(Connections Kl1[1, 2])

in type of protection „Intrinsic Safety" Ex ia IIC/IIB
max. values:

U_o = 24.2 V
I_o = 113 mA
P_o = 667 mW
characteristic line: linear

Ex ia	IIC		IIB		I	
max. permissible ext. inductance	0.2 mH	0.5 mH	0.5 mH	1.0 mH	0.5 mH	10 mH
max. permissible ext. capacitance	110 nF	81 nF	540 nF	460 nF	1000 nF	930 nF

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

The intrinsically safe supply and signal circuit is also allowed to be connected to apparatus in explosion hazardous areas caused by dust.
Then, the supply and signal circuit may be executed in type of protection Intrinsic Safety Ex ia IIC or Ex ia IIB.

Relay circuits (Relay output 1: connections Kl3[31, 32, 33] relay output 2: connections Kl3[34, 35, 36] relay output 3: connections Kl2[13, 14, 15] relay output 4: connections Kl2[16, 17, 18] relay output 5: connections Kl2[19, 20, 21] relay output 6: connections Kl2[22, 23, 24])	maximum values per relay: a. c. current: 253V, 2A, 125 VA d. c. current: 60V, 1A, 54 W
Current output (Connections Kl3[28, 29])	0/4 ... 20 mA U_m = 253 V a. c.
Communication circuits:	
RS232 connection (Bushing at lower part of housing or Ethernet connection (Bushing at lower part of housing)	for connection to a RS232 interface U_m = 50 V for connection to an Ethernet interface U_m = 50 V
USB connection (MINI USB bushing at lower part of housing)	for connection to an USB interface U_m = 16 V
Digital switch input circuits (Digital input 1: connections Kl1[8, 12] Digital input 2: connections Kl1[9, 12] Digital input 3: connections Kl1[10, 12] Digital input 4: connections Kl1[11, 12])	max. values: low level: U = -3V ... +5V d. c. high level: U = +11V ... +30V d. c. U_m = 36 V

The intrinsically safe supply and signal circuit is safe galvanically separated from the non-intrinsically safe circuits up to a peak crest value of the voltage of 375 V.

(16) The test documents are listed in the test report No. 09 203 555127.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones