

Translation

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

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



(3) **Certificate Number** TÜV 13 ATEX 131120 X **Issue:** 00

(4) for the product: Pressure transmitter type VEGABAR
 8(*) R/H/J/S/T*****(*)Z/H/A/S/T/P/F*****
 8(*) I*****(*)Z/H/U*****
 8(*) R/S*****(*)Z/H/A/S/T/P/F/U*****

(5) of the manufacturer: **VEGA Grieshaber KG**

(6) Address: Am Hohenstein 113
 77761 Schiltach
 Germany

Order number: 8000465931

Date of issue: 2017-04-28

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential ATEX Assessment Report No. 17 203 190315.

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


EN 60079-0:2012 + A11:2013 EN 60079-11:2012 EN 60079-31:2014

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. 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 product shall include the following:

 II 1 D, 1/2 D, 1/3 D, 2 D Ex ta ia, ia/tb, ia/tc, tb ia IIIC TX °C Da, Da/Db, Da/Dc, Db
 II 1/2- D, 1/2 D Ex ia/ia-, ia/tb ia IIIC TX°C Da/Db/-, Da/Db

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) EU-Type Examination Certificate No. TÜV 13 ATEX 131120 X Issue 00

(15) Description of product

The pressure transmitters type VEGABAR

8(*) R/H/J/S/T*****(*)Z/H/A/S/T/P/F*****

8(*) I*****(*)Z/H/U*****

8(*) R/S*****(*) Z/H/A/S/T/P/F/U*****

are used for pressure and filling level measurement in dust explosion hazardous areas.

A display and adjustment module PLICSCOM (TÜV 15 ATEX 161127 U or schematics SB1497-1-00-0, SB1503-1-02-0 and drawings GE3618-01, GE3626-02, GE3627-02, GE3628) can be installed within the equipment with following options:

X without

A installed

F without, cover with display window

B installed on the side

K installed, with Bluetooth, magnetic pen operation

U installed, with Bluetooth, battery, magnetic pen operation

L installed on the side, with Bluetooth, magnetic pen operation

S installed on the side, with Bluetooth, battery, magnetic pen operation

Electrical data

The specifications in the EC-Type Examination Certificate TÜV 13 ATEX 131120 X / Test Report 15 203 131120 are also still valid for the original versions.

(16) The test documents are listed in the test report No. 17 203 190315

(17) Special conditions for safe use

1. For EPL Da resp. EPL Db applications, at the metallic parts of the pressure transmitters made of light metal there is a danger of ignition by impact or friction.
2. For EPL Da resp. EPL Db applications and at risks by pendulum or vibration the respective parts of the pressure transmitter have to be secured effectively against these dangers.
3. For the execution with separate housing of the pressure transmitters, potential equalization has to exist in the complete course of the erection of the connecting cable between the electronics housing and the measuring sensor housing.
4. For EPL Da resp. EPL Db applications, the cable entries and blanking elements in the housing have to be suitably certified for an operating temperature area of -40 °C to 80 °C or the cable entries and blanking elements of the manufacturer have to be used.
5. The pressure transmitters with built in electronics "4 wire with installed barrier MODBUS" must not be used for EPL Da applications.

Observe manual of the manufacturer.

(18) Essential Health and Safety Requirements
no additional ones

- End of Certificate -

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 13 ATEX 131120 X

(4) for the equipment: Pressure transmitters type VEGABAR
8(*) R/H/J/S/T*****(*)Z/H/A/S/T/P/F*****
8(*) |*****(*)Z/H/U*****
8(*) R/S*****(*) Z/H/A/S/T/P/F/U*****


(5) of the manufacturer: VEGA Grieshaber KG

(6) Address: Am Hohenstein 113
77761 Schiltach
Germany

Order number: 8000427173

Date of issue: 2015-05-11

- (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. 13 203 131120.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012 EN 60079-11:2012 EN 60079-31:2014
- (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 D, 1/2 D, 1/3 D, 2 D Ex ta ia, ia/tb, ia/tc, tb ia IIIC TX °C Da, Da/Db, Da/Dc, Db
II 1/2- D, 1/2 D Ex ia/ia/-, ia/tb ia IIIC TX°C Da/Db/-, Da/Db

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



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(13) **SCHEDULE**

(14) **EC-Type-Examination Certificate No. TÜV 13 ATEX 131120 X**

(15) Description of equipment

The pressure transmitters type VEGABAR

8(*) R/H/J/S/T*****(*)Z/H/A/S/T/P/F*****

8(*) * *****(*)Z/H/U*****

8(*) R/S*****(*) Z/H/A/S/T/P/F/U*****

are used for pressure and filling level measurement in dust explosion hazardous areas.

The following VEGABAR B8*(*) electronic versions are available:

- Z: 2 wire 4 ... 20 mA transmitters
- H: 2 wire 4 ... 20 mA transmitters with superposed HART signal
- A: 2 wire 4 ... 20 mA transmitters with superposed HART signal and additional SIL qualification
- S: Slave electronics for electronic differential pressure
- T: Slave electronics for electronic differential pressure and additional SIL qualification
- U: 4 wire with installed barrier MODBUS
- P: Profibus PA (Fisco)
- F: Foundation Fieldbus

Electrical data

VEGABAR *8*(*) R/H/J/S/T***(*)*******

VEGABAR *8*(*) R/H/J/S/T*****(*)Z/H/A*****

Supply and signal circuit

(Terminals K11[+], K12[-] in the electronics compartment, in the execution with 2 chamber housing in the terminal housing)

$U_n = 9.6 \dots 30 \text{ V d. c.}$

$I_n = 4 \dots 22 \text{ mA}$

$U_m = 30 \text{ V d. c.}$

VEGABAR *8*(*) R/H/J/S/T *****(*)H/AZ*****

Supply and signal circuit I

(Terminals K11[+], K12[-] in the terminal housing)

$U_n = 9.6 \dots 30 \text{ V d. c.}$

$I_n = 4 \dots 22 \text{ mA}$

$U_m = 30 \text{ V d. c.}$

Supply and signal circuit II

(Terminals K17[+], K18[-] in the terminal housing)

$U_n = 9.6 \dots 30 \text{ V d. c.}$

$I_n = 4 \dots 22 \text{ mA}$

$U_m = 30 \text{ V d. c.}$

VEGABAR *8*(*) R/H/J/S/T *****(*)P/F*****

Supply and signal circuit

(Terminals K11[+], K12[-] in the electronics compartment, in the execution with 2 chamber housing in the terminal housing)

$U_n = 9.6 \dots 32 \text{ V d. c.}$

$I_n = 4 \dots 11 \text{ mA}$

$U_m = 32 \text{ V d. c.}$

VEGABAR *8*(*) R/H/J/S/T *****(*)S/T*****

Supply and signal circuit

(Terminals 5, 6, 7, 8)

For connection to a VEGABAR B80 with installed electronics H/A/P/F for differential pressure measurement.

Schedule EC-Type Examination Certificate No. TÜV 13 ATEX 131120 X

VEGABAR *8*(*)* R/H/J/S/T *****(*)H/A/P/F*****

Supply and signal circuit
(Terminals 5, 6, 7, 8)

For connection to the circuit (terminals 5, 6, 7, 8) of the belonging indication unit VEGADIS 61/81 or for connection of a VEGABAR B80 with installed electronics S or T for differential pressure measurement.

VEGABAR *8*(*)* R/S/I*****(*)*****

VEGABAR *8*(*)* R/S/I*****(*)Z/H*****

Supply and signal circuit I
(Terminals KI1[+], KI2[-] in the electronics compartment, in the execution with 2 chamber housing in the terminal housing)

$U_n = 9.6 \dots 30 \text{ V d. c.}$
 $I_n = 4 \dots 22 \text{ mA}$
 $U_m = 30 \text{ V d. c.}$

VEGABAR *8*(*)* R/S/I*****(*)U*****

Supply and signal circuit I
(Terminals KI1[+], KI2[-] in the electronics compartment, in the execution with 2 chamber housing in the terminal housing)

$U_n = 9.6 \dots 30 \text{ V d. c.}$
 $I_n = 4 \dots 22 \text{ mA}$
 $U_m = 30 \text{ V d. c.}$

Signal circuit II
(Terminals MB(+), MB(-))

$U_n = 5 \text{ V d. c.}$
 $I_n = 4 \dots 22 \text{ mA}$
 $U_m = 5 \text{ V d. c.}$
MODBUS-signal (telegram)

VEGABAR *8*(*)* R/S/I *****(*)H*****

Supply and signal circuit
(Terminals 5, 6, 7, 8)

For connection to the circuit (terminals 5, 6, 7, 8) of the belonging indication unit VEGADIS 61/81 or for connection of a VEGABAR B80 with installed electronics S or T for differential pressure measurement.

VEGABAR *8*(*)* S/T*****(*)*****

VEGABAR *8*(*)* S/T*****(*)Z/H/A/S/T/I/P/F/(U)*****

Measuring sensor circuits
(Terminals
1 | yellow, 2 | white, 3 | red, 4 | black)

In the execution with a cable between the electronics housing and the measuring sensor housing, a length of the provided cable of max. 180 m is permissible.

The intrinsically safe circuits to the measuring sensor are galvanically connected with earth potential.

Schedule EC-Type Examination Certificate No. TÜV 13 ATEX 131120 X

Thermal data

Category 1D apparatus

Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +60°C
Max. surface temperature	
Electronics housing	Ambient temperature + 42 K
(Electronics Z/H/A/S/T/P/F)	

Category 2D apparatus

Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +60°C
Max. surface temperature	
Measuring sensor	Process temperature + 41 K

Category 1/2D and 1/3D apparatus

Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +60°C
Max. surface temperature	
Electronics housing	Ambient temperature + 5 K
(Electronics Z/H/A/S/T/P/F/U)	
Measuring sensor	Process temperature + 41 K

Category 1/2D and 1/3D apparatus with temperature adapter

Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +130°C
Max. surface temperature	
Electronics housing	Ambient temperature + 20 K
(Electronics Z/H/A/S/T/P/F/U)	
Measuring sensor	Process temperature + 41 K
Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +150°C

Schedule EC-Type Examination Certificate No. TÜV 13 ATEX 131120 X

Max. surface temperature	
Electronics housing	Ambient temperature + 20 K
(Electronics Z/H/A/S/T/P/F/U)	
Measuring sensor	Process temperature + 41 K

Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +180°C

Max. surface temperature	
Electronics housing	Ambient temperature + 16 K
(Electronics Z/H/A/S/T/P/F/U)	
Measuring sensor	Process temperature + 41 K

Permissible temperature area	
Electronics housing	-40°C ... +60°C
Measuring sensor	-40°C ... +200°C

Max. surface temperature	
Electronics housing	Ambient temperature + 17 K
(Electronics Z/H/A/S/T/P/F/U)	
Measuring sensor	Process temperature + 41 K

Category 1/2/-D apparatus

Permissible temperature area	
Electronics housing	-40°C ... +60°C

Max. surface temperature	
Measuring sensor	Process temperature + 41 K

(16) The test documents are listed in the test report No. 15 203 131120

Schedule EC-Type Examination Certificate No. TÜV 13 ATEX 131120 X

(17) Special conditions for safe use

1. For EPL Da resp. EPL Db applications, at the metallic parts of the pressure transmitters made of light metal there is a danger of ignition by impact or friction.
2. For EPL Da resp. EPL Db applications and at risks by pendulum or vibration the respective parts of the pressure transmitter have to be secured effectively against these dangers.
3. For the execution with separate housing of the pressure transmitters, potential equalization has to exist in the complete course of the erection of the connecting cable between the electronics housing and the measuring sensor housing.
4. For EPL Da resp. EPL Db applications, the cable entries and blanking elements in the housing have to be suitably certified for an operating temperature area of $-40\text{ }^{\circ}\text{C}$ to $80\text{ }^{\circ}\text{C}$ or the cable entries and blanking elements of the manufacturer have to be used.
5. The pressure transmitters with built in electronics "4 wire with installed barrier MODBUS" must not be used for EPL Da applications.

Observe manual of the manufacturer.

(18) Essential Health and Safety Requirements

no additional ones