

Translation

EC-Type Examination Certificate

- (1) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (2) No. of EC-Type Examination Certificate: **BVS 16 ATEX E 022 X**
- (3) Equipment: **Radar sensor type VEGAPULS PS69(*)..A*****(*)(*)**
- (4) Manufacturer: **VEGA Grieshaber KG**
- (5) Address: **Am Hohenstein 113, 77761 Schiltach**
- (6) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (7) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, 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 Annex II to the Directive. The examination and test results are recorded in the Test and Assessment Report BVS PP 16.2037 EG.
- (8) The Essential Health and Safety Requirements are assured by compliance with:
EN 60079-0:2012 + A11:2013 General requirements
EN 60079-31:2014 Protection by Enclosure "t"
- (9) 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 appendix to this certificate.
- (10) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to 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.
- (11) The marking of the equipment shall include the following:

II 1D Ex ta IIIC T* Da
II 1/2D Ex ta/tb IIIC T* Da/Db
II 1/3D Ex ta/tc IIIC T* Da/Dc
II 2D Ex tb IIIC T* Db
IP66

* see manual

DEKRA EXAM GmbH
Bochum, dated 2016-03-29

Signed: Simanski

Certification body

Signed: Dr. Wittler

Special services unit



(13) Appendix to

(14) **EC-Type Examination Certificate**
BVS 16 ATEX E 022 X

(15) 15.1 Subject and type

Radar sensor type

VEGAPULS PS 69(*) A *****(*)(*)

without relevance for explosion protection

adjustment / indication module:

X = without

A = mounted

F = without PLICSCOM, cover with window

B = laterally mounted

K = mounted, with Bluetooth and magnet pin

U = mounted, with Bluetooth and magnet pin (battery)

L = laterally mounted, with Bluetooth and magnet pin

S = laterally mounted, with Bluetooth and magnet pin (battery)

cable entry

enclosure

A = aluminium enclosure IP66

H = aluminium enclosure IP66 (special colour)

D = aluminium double chamber enclosure IP66

S = aluminium double chamber enclosure IP66 (special colour)

V = stainless steel enclosure IP66

W = stainless steel double chamber enclosure IP66

additional electronics

X = without

Z = additional output 4...20 mA

electronics

H = 4...20 mA + HART

B,I = 4 wire electronics, 4...20 mA + HART

P = Profibus PA

F = Foundation Fieldbus

sealing rings/process temperature

A = FKM and PEEK / -40 °C...+130 °C

B = FKM and PEEK / -40 °C...+200 °C

C = PP / -40 °C...+80 °C

D = FKM and PP / -40 °C...+80 °C

E = EPDM and PP / -40 °C...+80 °C

F = EPDM and PEEK / -40 °C...+130 °C

process connection see manual

version / material

B = plastic horn antenna

C = metal framed lens antenna / cleaning connection /PEEK

certificate

H = ATEX II 1G, 1/2G, 2G Ex ia IIC T6 (PTB 14 ATEX 2007X)
ATEX II 1D, 1/2D, 2D Ex t IIIC T...IP66

I = ATEX II 1/2G, 2G Ex d ia IIC T6 (PTB 15 ATEX 2024X)
ATEX II 1D, 1/2D, 2D Ex t IIIC T...IP66

J = ATEX II 1/2G, 2G Ex d IIC T6 (PTB 15 ATEX 1009X)

ATEX II 1D, 1/2D, 2D Ex t IIIC T...IP66

R = ATEX II 1D, 1/2D, 2D Ex t IIIC T...IP66

Scope : A – ATEX/Europe

optional version differentiation,
without relevance for explosion protection

15.2 Description

The Radar sensor type VEGAPULS PS69(*)..I*****(*)(*) is used to measure the distance between the surface of combustible dust generating material and the sensor.
It consists of an enclosure in equipment dust ignition protection by enclosure "t" according to BVS 14 ATEX E 121 U (BVS PP 02.2113 EG) and an antenna coupling at the process.

15.3 Parameters

15.3.1 Electrical data

- 15.3.1.1 VEGAPULS PS69(*)..AR****H*****(*)(*)
VEGAPULS PS69(*)..AR****H****B**(*)(*)

Supply

terminals 1 [+], 2 [-] in the electronics compartment or in the terminal compartment regarding the two cell enclosure version

U = 12 V 35 V DC

- 15.3.1.2 VEGAPULS PS69(*)..AR****HZ*****(*)(*)

Supply and signal circuit 1
terminals 1 [+], 2 [-] in the electronics compartment or in the terminal compartment regarding the two cell enclosure version

U = 12 V 35 V DC

Supply and signal circuit 2

terminals 7 [+], 8 [-] in the electronics compartment or in the terminal compartment regarding the two cell enclosure version

U = 12 V 35 V DC

- 15.3.1.3 VEGAPULS PS69(*)..AR****P/F*****(*)(*)

Supply and signal circuit
terminals 1 [+], 2 [-] in the electronics compartment

U = 9 V 32 V DC

- 15.3.1.4 VEGAPULS PS69(*)..AR****P/F****B**(*)(*)

Supply and signal circuit
terminals 1 [+], 2 [-] in the electronics compartment or in the terminal compartment regarding the two cell enclosure version

U = 9 V 32 V DC

- 15.3.1.5 VEGAPULS PS69(*)..AR****B*****(*)(*)

supply

(terminals 1, 2 in the terminal compartment)

AC 90...253 V, 50/60 Hz

output

(terminals 5[+], 7[-] in the terminal compartment)

4...20 mA with superposed HART-signal

passive signal current, input

(terminals 6[+], 7[-] in the terminal compartment)

4...20 mA with superposed HART-signal

- 15.3.1.6 VEGAPULS PS69(*)..AR****I*****(*)(*)

supply

(terminals 1, 2 in the terminal compartment)

AC 20...42 V, 50/60 Hz or

DC 9,6...48 V

output

(terminals 6[+], 7[-] in the terminal compartment)

4...20 mA with superposed HART-signal

passive signal current, input

(terminals 6[+], 7[-] in the terminal compartment)

4...20 mA with superposed HART-signal

- 15.3.1.7 VEGAPULS PS69(*) AR****H/P/F*****(*)(*)
 VEGAPULS PS69(*) AR****H/P/F***B**(*)(*)
 adjustment and indication circuit
 (terminals 5, 6, 7, 8 in the electronics compartment) only for connection to the associated VEGA adjustment and indication unit VEGADIS61/81 according to BVS 05 ATEX E 023
- 15.3.1.8 VEGAPULS PS69(*) AR****H/P/F/B/I*****(*)(*)
 adjustment and indication circuit only for connection to the adjustment and indication unit PLICSCOM (TÜV 15 ATEX 161127 U) or VEGACONNECT (PTB 07 ATEX 2013X).
- 15.3.2 Thermal data
- 15.3.2.1 Permitted process temperature at the probe VEGAPULS PS69(*) AR***X*****(*)(*) X: A = FKM (SHS FPM 70C3 GLT) + PEEK / -40 °C...+130 °C with short temperature reduction piece
 B = FKM (SHS FPM 70C3 GLT) + PEEK / -40 °C...+200 °C with long temperature reduction piece
 C = PP / -40 °C...+80 °C
 D = FKM (SHS FPM 70C3 GLT) + PP -40 °C...+ 80 °C
 E = EPDM (COG AP310) and PP /-40 °C...+ 80 °C
 F = EPDM (COG AP302) and PEEK (FDA) /-40 °C...+130 °C with short temperature reduction piece
- 15.3.2.2 Permitted ambient temperature at the electronics enclosure -40 °C...+ 60 °C
- 15.3.2.3 Maximum surface temperature at the probe process temperature + 2 K
- 15.3.2.4 Maximum surface temperature at the electronics enclosure
 VEGAPULS PS69(*) AR/H/I/J****H*****(*)(*) ambient temperature + 28 K
 VEGAPULS PS69(*) AR/I/J****B/I*****(*)(*) with thermo fuse limited to 102 °C
 VEGAPULS PS69(*) AR/J****P/F*****(*)(*) ambient temperature + 30 K
 VEGAPULS PS69(*) AR/H/J****HZ*****(*)(*) ambient temperature + 51 K
- 15.3.3 Degrees of protection according to EN 60529 IP66

(16) Test and assessment report

BVS PP 16.2037 EG as of 2016-03-29

(17) Special conditions for safe use

- 17.1 Variants of the radar sensor type VEGAPULS PS 69(*) AH/I/J*****(*)(*) for which aluminium is used shall be installed in such a way that sparking as a result of impact or friction between aluminium and steel (with the exception of stainless steel if the presence of rust particles can be excluded) is excluded.
- 17.2 The level measuring devices in the version with swivelling holder shall be installed in such a way that if used as a category 1/2 equipment the degree of protection IP67 is kept.

We confirm the correctness of the translation from the German original.
 In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
 44809 Bochum, 2016-03-29
 BVS-Hk/Nu A 20150803



Certification body



Special services unit

