



Certificate of Compliance

Certificate: 70025164 (023257_0_000)

Master Contract: 153857

Project: 70056447

Date Issued: 2016-06-06

Issued to: Vega Grieshaber KG
Am Hohenstein 113
Schiltach, 77761
GERMANY

Attention: Nick Ilchovski

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: *Siros Ghanbarzadeh*
Siros Ghanbarzadeh

PRODUCTS

CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-

CLASS - C225882 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

CLASS - C225804 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations-

CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity-- For Hazardous Locations - Certified to US Standards

CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-

CLASS - C225882 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

DIP Class II, Div. 1, Groups E, F and G; Class III;T coded see-manual No. 51032-EN-160510; Type 4X; IP66/67

Ex ta IIIC Da T coded see-manual, Type 4X; IP66/67; Zone 20,

AEx ta IIIC T coded see-manual; Type 4X; IP66/67; Zone 20

VEGAPULS 69 series Radar Sensor for Continuous Level Measurement of bulk solids.



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Version 4; 20mA with HART, 4-wire; rated 9.6 – 48Vdc or 20 – 42Vac, 4VA, 2.1W ; Enclosure Type 4X, IP66/67; Ambient temperature range -40°C to +60°C; Overvoltage Category II

Version 4; 20mA with HART, 4-wire; rated 90 – 253Vac, 4VA ; Enclosure Type 4X, IP66/67; Ambient temperature range -40°C to +60°C; Overvoltage Category II

Version 4; 20mA with HART, 2-wire; rated 12 – 35Vdc; Enclosure Type 4X, IP66/67; Ambient temperature range -40°C to +60°C.

Nomenclature:

I VEGAPULS 69, Ex ta version

PS69(a).Cbcdefghijklm(n)(o)

- a = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties
- b = Approval: R
- c = Version/material: B or C
- d, e = Process connection: Two digit alphanumeric variable for connections, which represents a TRI- CLAMP, DN or ASME industry type flange with pressure ratings and any type which comply with an international or national standard.
- f = Sealing ring/Process temperature: A, B, C, D, E or F
- g = Electronics: H, B or I
- h = Supplementary Electronics: X or Z
- i = Housing: A, H, D, S, V or W
- j = Cable Entry/Connection: I, Q, D, N or any other comparable connection or cable gland suitable for the application
- k = Indicating/Adjustment Module PLICSCOM: A, B or X
- l = supplementary equipment: X, R, V
- m = Parameter for internal information, options not affecting safety, one digit alphanumeric variables referring to non-electrical properties
- n, o = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties

Note:

1. For special condition use refer to manual No. 51032-EN-160510, also T* is based on maximum process temperatures identified in above manual.
2. d, e* For Process connection refer to Appendix-B
3. End user must ensure external equipment and process temperatures do not exceed 165C

Permitted ambient temperature at the electronics housing: -40°C...+60°C

Maximum surface temperature T:*

T = ambient temperature +28K for VEGAPULS PS69(*).CR****H*****(*) (*)*

T = ambient temperature +51K for VEGAPULS PS69(*).CR****HZ*****(*) (*)*

T = +102°C (limited by thermal fuse) for VEGAPULS PS69(*).CR****B/I*****(*) (*)*



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Permitted process temperature at the antenna is given by the option f = Sealing ring/Process temperature:

f = A, permitted process temperature = -40°C...130°C

f = B, permitted process temperature = -40°C...200°C

f = C, permitted process temperature = -40°C...80°C

f = D, permitted process temperature = -40°C...80°C

f = E, permitted process temperature = -40°C...80°C

f = F, permitted process temperature = -40°C...130°C

Maximum surface temperature T:*

T = process temperature + 2K*

Further details regarding permitted temperatures (temperature derating) has to be taken from the safety hints with the id 51032.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT – For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT – For Hazardous Locations – Certified to US Standards

Class I Division 1, Groups B, C and D

Ex d IIC Gb; Class I Zone 0/1, 1 AEx d IIC Gb; T coded see-manual No. 53837-EN-160512;

- VEGAPULS 69 series Radar Sensor for Continuous Level Measurement of liquids. Enclosure Type 4X, IP66/68; Dual Seal*; Permitted ambient and process temperatures see manual with the id 53837-EN-160512

Nomenclature

II. VEGAPULS 69, Ex d version

PS64(a).Cbcd efghijklm(n)(o)

- a = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties
- b = Approval: E
- c = Version/material: B or C
- d, e* = Process connection: Two digit alphanumeric variable for connections, which represents a TRI-CLAMP, DN or ASME industry type flange with pressure ratings and any type which comply with an international or national standard.
- f = Sealing ring/Process temperature: B, C, D, E or one letter code for seal suitable for the application including the given process temperature
- g = Electronics: H, B, I, U
- h = Supplementary Electronics: X or Z
- i = Housing: A, H, D, S, V or W
- j = Cable Entry/Connection: I, Q, D, N or any other comparable connection or cable gland suitable for the application
- k = Indicating/Adjustment Module PLICSCOM: A, B or X
- l = supplementary equipment: X, R, V
- m = Parameter for internal information, options not affecting safety, one digit alphanumeric variables referring to non-electrical properties



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n, o = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties

Note:

1. For special condition use refer to manual No. 53837-EN-160512, also T* is based on maximum process temperatures identified in above manual.
2. d, e* For Process connection refer to Appendix-B

CLASS 2258-04 - PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations
CLASS 2258-84 - PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations
– Certified to US Standards

Class I, Division 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G, Class III; T coded
Ex ia IIC T6...T1 Ga ; see manual 51031-EN-151109 for T code rating
Class I Zone 0, 0/1, 1 AEx ia IIC T6...T1 Ga

- VEGAPULS 69 series Radar Sensor for Continuous Level Measurement of bulk solids, for connections to the intrinsically safe circuits with entity parameters per the Control Drawing No. 51031. Enclosure Type 4X, IP66/67; Permitted ambient and process temperatures see manual No.: 51031-EN-151109

Nomenclature:

III VEGAPULS 69, Ex ia version

PS69(a).Cbcd efghijklm(n)(o)

- a = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties
- b = Approval: C
- c = Version/material: B or C
- d, e = Process connection: Two digit alphanumeric variable for connections, which represents a TRI- CLAMP, DN or ASME industry type flange with pressure ratings and any type which comply with an international or national standard.
- f = Sealing ring/Process temperature: A, B, C, D, E or F
- g = Electronics: H
- h = Supplementary Electronics: X or Z
- i = Housing: K, A, H, 3, D, S, 4, Y, V, 5, 8, Q, R, X or W
- j = Cable Entry/Connection: 1, Q, D, N or any other comparable connection or cable gland suitable for the application
- k = Indicating/Adjustment Module PLICSCOM: A, B or X
- l = supplementary equipment: X, R, V
- m = Parameter for internal information, options not affecting safety, one digit alphanumeric variables referring to non-electrical properties
- n, o = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties



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Note:

1. For special condition use refer to manual No. 51031-EN-151109, also T* is based on maximum process temperatures identified in above manual.
2. d, e* For Process connection refer to Appendix-B

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT – For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT – For Hazardous Locations – Certified to US Standards

Class I Division 1, Groups B, C and D

Ex d IIC Gb; Class I Zone 0/1, 1 AEx d IIC Gb; T coded

- VEGAPULS 64 series Radar Sensor for Continuous Level Measurement of liquids. Enclosure Type 4X/6P, IP66/67/68; Dual Seal; Permitted ambient and process temperatures see manual No.: 53838-EN-160513

Nomenclature:

III. VEGAPULS 64, Ex d version

PS64(a).Cbcd efghijklm(n)(o)

- a = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties
- b = Approval: E or Q
- c = Version/material: D, U or G
- d, e = Process connection: Two digit alphanumeric variable for connections, which represents a TRI-CLAMP, DN or ASME industry type flange with pressure ratings and any type which comply with an international or national standard.
- f = Sealing ring/Process temperature: A, B, C, D, E, F, G, H, I, J, K, L, M, N, P, Q or one letter code for seal suitable for the application including the given process temperature
- g = Electronics: H
- h = Supplementary Electronics: X
- i = Housing: A, H, D, S, V or W
- j = Cable Entry/Connection: 1, Q, D, N or any other comparable connection or cable gland suitable for the application
- k = Indicating/Adjustment Module PLICSCOM: A, B or X
- l = supplementary equipment: X or V
- m = Parameter for internal information, options not affecting safety, one digit alphanumeric variables referring to non-electrical properties
- n, o = Optional electable parameter for internal information, options not affecting safety, one digit alphanumeric variable referring to non-electrical properties

Note:

1. For special condition use refer to manual No. 53838-EN-160513, also T* is based on maximum process temperatures identified in above manual.
2. d, e* For Process connection refer to Appendix-B



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APPLICABLE REQUIREMENTS

C22.2 No 0-10 (R 2015)	General Requirements - Canadian Electrical Code, Part II (10 th edition)
C22.2 No 0.4-M1982 (R 2006)	Bonding and Grounding of Electrical Equipment (Protective Grounding)
C22.2 No 25-1966 (R 2004)	Enclosures for Use in Class II Groups E, F and G Hazardous Locations
C22.2 No 94-M91 (R 2011)	Special Purpose Enclosures
C22.2 No 142-M1987 (R 2004)	Process Control Equipment
C22.2 No 157-92 (R 2006)	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
C22.2 No 213-M1987 (R 2004)	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
C22.2 No. 61010-1-12	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1 General Requirements
C22.2 No. 60079-0:15	Explosive Atmospheres – Part 0: Equipment - General Requirements
C22.2 No. 60079-11:12	Electrical apparatus for explosive gas atmospheres - Part 11: intrinsic safety “i”
C22.2 No. 60079-31:15	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure “t”
UL Standard No. 61010-1 (3 rd Edition)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
UL Standard No. 61010-1 (2 nd Edition)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
UL Standard No. 913 (4th Ed.)	Intrinsically Safe and Associated Apparatus For Use In Class I, II, and III, Division 1, Hazardous (Classified) Locations
UL Standard No. 1203, Ed. 4 (2006)	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
UL Standard No. 50 (Ed. 13) 2015	Enclosures for Electrical Equipment
ANSI/ISA 12.12.01	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations
ANSI/UL 60079-0 (5th Ed. 2009)	Explosive Atmospheres – Part 0: Equipment - General Requirements
ANSI/UL 60079-1 (6th Ed. 2009)	Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”
ANSI/UL 60079-11 (6th Ed. 2011)	Equipment protection by intrinsic safety “i”
ANSI/UL 60079-31 (2th Ed. 2013)	Equipment dust ignition protection by enclosure “t”
ANSI/ISA 60079-15 (5th Ed. 2009)	Electrical Apparatus for Explosive Atmospheres. Part 15: Electrical Apparatus with Type of Protection “n”
ANSI/ISA 61010-1-2015	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory use – Part 1: General requirements
ANSI/ISA 12.27.01-2011	Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids
IEC 60529	Degrees of Protection Provided by Enclosures (IP Code) – (Edition 2.2) 2013



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MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The markings are applied on approved label stock to the radar sensor housing in accordance with drawings GE3612, GE3613 and GE3614

The following marking details appear:

- CSA monogram with "C/US" indicator;
- Company name or Master Contract;
- Model number;
- Serial number;
- Datecode;
- Electrical rating;
- Hazardous locations designation;
- Temperature Code;
- Minimum and Maximum ambient temperature;
- Maximum working pressure in MPa.
- Minimum and Maximum process temperature
- Warning Label "Do not open when Explosive atmosphere is present"



Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70056447	2016-06-06	<ol style="list-style-type: none">1. add the PULS64 with Class I Division 1, Groups B, C and D ;Ex d IIC Gb; Class I Zone 0/1, 1 AEx d IIC Gb.2. For Protection type DIP/Ex t: Permitted process temperature at the sensor/antenna to reduce to 165°C from 200°C.3. Revise VEGAPULS 69 to add Ex d listing and reduce operating ambient temperature range from -40°C to +80°C to -40°C to +60°C.4. Update instruction manual for all series.
70044313	2015-10-22	VEGAPULS69- REPORT 70025164 EX IA ADDITION
70025164	2015-08-13	New Product Certification-New VEGA gauge # VEGAPULS 69