



Certificate of Compliance

Certificate: 70076776 (023257_0_000)

Master Contract: 153857

Project: 70076776

Date Issued: 2018-03-28

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

Attention: Seyedeh Hashemi

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:

Gordon Neuroth

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

-CERTIFIED TO U.S. STANDARDS

Class I, Zone 2, AEx nA IIC T4 Gc

Class I, Zone 0 [AEx ia Ga] IIC

Zone 20, [AEx ia Da] IIIC

Ex nA IIC T4 Gc

[Ex ia Ga] IIC

[Ex ia Da] IIIC

By additional marking as per CAN/CSA-C22.2 No. 60079-0:15, CAN/CSA-C22.2 No. 60079-11:14 and UL 60079-0:12.

Class I, Division 2, Groups A, B, C, and D, T4

Associated equipment for Class I, Division 1, Groups A, B, C, and D

Associated equipment for Class II Division 2, Groups E, F, G and for Class II





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Single-channel Ex-Separator VEGATRENN 151.***** and dual-channel Ex-Separator VEGATRENN 152.***** used for galvanic isolation.

Electrical data

Current output circuits..... Channel 1: Terminals 10, 11; 12 Channel 2: Terminals 13, 14; 15	U = 15 ... 35 V d. c., 4...20 mA U _m = 253 V a. c.
Current input circuits..... Channel 1: Terminals 1 and 2 Channel 2: Terminals 4 and 5	in type of protection „Intrinsic Safety“ Ex ia IIC, IIB, Maximum values per channel: U ₀ / V _{oc} = 18 V I ₀ / I _{oc} = 32 mA P ₀ = 569 mW Characteristic line: rectangular The effective internal capacitances and inductances are negligibly small.

Ex ia	IIC	IIB
max. permissible ext. inductance L ₀ / L _a	2 mH	5 mH
max. permissible ext. capacitance C ₀ / C _a	0.15 µF	1.3 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.

Permissible ambient temperature range: -20 °C ≤ Tamb ≤ +60 °C

Note: For the use in Class I, Division 2 or Zone 2 the Ex-Separators VEGATRENN 151.***** and VEGATRENN 152.***** are components according to clause 13 of CAN/CSA-C22.2 No. 60079-0:15 and UL 60079-0:12. These components shall be completely enclosed in a suitable enclosure, according to the Special Conditions of Safe Use and the final combination shall be subjected to acceptance of the local authority having jurisdiction.

The scope of equipment, including fixed and variable parts of the type designation, for the different versions is VEGATRENN 151.C*XXX** and VEGATRENN 152.C*XXX** according to the encoding of the type designation as shown in the tables below.



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Wild-card no.	Meaning for Type 151.*****	Feature	Description
1	Scope	C	Canada / US
2	Approval	C	Associated Equipment for CLI, DIV1, GP ABCD Associated Equipment for CLII, DIV 2, GP EFG and CLIII [Ex ia Ga/Da] IIC/IIIC, CLI, Zone 0/20, [AEx ia Ga/Da] IIC/IIIC
		A	CL I, DIV2, GP ABCD T4; Ex nA IIC T4 GC CL I, Zone 2, AEx nA IIC T4 GC
		*	more possible markings in case the version is separately certified according to an additional certificate. The detailed encoding of the type code is part of the safety instructions.
3	Version	X	Single channel for 4 ... 20 mA/HART sensors
4	SIL qualification	X	without
		S	with, incl. Safety Manual
5	Housing / Protection	K	Plastic / IP20
		U	Protective housing plastic / IP66/IP67
6	Terminal blocks / Connection	X	2.5 mm ² detachable terminal blocks 1x black / 2x black
		B	2.5 mm ² detachable terminal blocks 1x blue / 2x black
7	Certificates	M	Yes, quality and test plans delivered
		X	No



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Wild-card no.	Meaning for Type 152.*****	Feature	Description
1	Scope	C	Canada / US
2	Approval	C	Associated Equipment for CLI, DIV1, GP ABCD Associated Equipment for CLII, DIV 2, GP EFG and CLIII [Ex ia Ga/Da] IIC/IIIC, CLI, Zone 0/20, [AEx ia Ga/Da] IIC/IIIC
		A	CL I, DIV2, GP ABCD T4; Ex nA IIC T4 GC CL I, Zone 2, AEx nA IIC T4 GC
		* Characters To be defined by the manufacturer	more possible markings in case the version is separately certified according to an additional certificate. The detailed encoding of the type code is part of the safety instructions.
3	Version	X	Double channel for 4 ... 20 mA/HART sensors
4	SIL qualification	X	without
		S	with, incl. Safety Manual
5	Housing / Protection	K	Plastic / IP20
		U	Protective housing plastic / IP66/IP67
6	Terminal blocks / Connection	X	2.5 mm ² detachable terminal blocks 2x black / 2x black
		B	2.5 mm ² detachable terminal blocks 2x blue / 2x black
7	Certificates	M	Yes, quality and test plans delivered
		X	No



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SPECIAL CONDITION OF SAFE USE:

1. The Single-channel Ex-Separator type VEGATRENN 151.***** and the dual-channel Ex-Separator type VEGATRENN 152.***** shall be installed completely inside an additional enclosure, providing a degree of protection of not less than IP54 according to CSA/UL 60079-0 and CSA/UL 60079-15. The ambient temperature within the end use enclosure shall not exceed the limits of the permissible ambient temperature range.
2. Alternatively to the condition 1. the Single-channel Ex-Separator type VEGATRENN 151.***** and the dual-channel Ex-Separator type VEGATRENN 152.***** may be installed completely inside an additional enclosure, providing a degree of protection of not less than IP4X according to CSA/UL 60079-0 and CSA/UL 60079-15. In this case the equipment must exclusively be mounted in locations providing adequate protection against the entry of solid foreign objects or liquids.
3. The end user shall ensure appropriate earthing upon installation.
4. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection authority.

APPLICABLE REQUIREMENTS

CSA Std C22.2 No. 0-10	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 61010-1-12	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
CAN/CSA-C22.2 No. 61010-2-201:14	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 2-201: Particular requirements for control equipment
CAN/CSA Std. C22.2 No. 60079-0:15	Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
CAN/CSA Std. C22.2 No. 60079-11:14	Electrical apparatus for explosive gas atmospheres - Part 11: intrinsic safety "i"
CAN/CSA Std. C22.2 No. 60079-15:12	Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
UL Std. No. 61010-1 (3 rd Edition)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
UL Std. No. 61010-2-201 (1 st Edition)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 2-201: Particular requirements for control equipment
UL 60079-0 (6th Edition 2012)	Explosive Atmospheres – Part 0: Equipment - General Requirements
UL 60079-15: (4th Edition 2013)	Explosive atmospheres – Part 15: Equipment protection by type of protection 'n'
UL 60079-11(6th Edition 2013)	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety "i"



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MARKINGS

- CSA Monogram with C-US indicator.
 - Submitter Identification.
 - Model Designation.
 - Serial Number, Date Code or Month and Year of Manufacture.
 - Electrical Ratings.
 - Ambient temperature range
 - CSA Certificate number: "CSA 17. 70176776"
 - The marking for Zones and Divisions as shown in the product section
 - Installation as per Control Drawing GE3870
 - Warnings as shown below in English and French.
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- **WARNING: EXPLOSION HAZARD - DO NOT CONNECT OR DISCONNECT WHILE CIRCUITS ARE LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS;**
 - **AVERTISSEMENT: RISQUE EXPLOSIF- NE JAMAIS BRANCHEZ OU DECONNECTEZ QUAND LES CIRCUITS INTERNES SONT SOUS TENSION Á MOINS QUE LA ZONE SOIT PAS Á RISQUES.**
 - **WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.**
 - **AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE**



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
70076776	2018-03-28	Original certification of the Ex-Separators type VEGATRENN 151 and 152

