Safety Instructions
VEGAMET 624, 625.KX
VEGASCAN 693.KX

Installation control diagram

GE 2761

Document ID: 40693

Redaktionsstand: 2016-07-01

Certificate of Compliance

Certificate: 1855542 **Master Contract:** 153857

Project: 70077518 **Date Issued:** 2016-06-17

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

C US

Issued by: Hossein Saleh
Hossein Saleh

PRODUCTS

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

- VEGAMET 624, VEGAMET 625 and VEGASCAN 693 series, Operating voltage 20V-250V AC/DC, Power consumption 10VA, 5.5W; Certified as Associated Intrinsically Safe Apparatus with Entity parameters for connection to Class I, II, and III, Division 1, Groups A, B, C, D, E, F and G; Suitable for use in Class I, Division 2, Groups A, B, C and D; indoor hazardous locations when installed in accordance with Control Drawing GE2200 at an ambient temperature range of -20°C to 60°C.

  MET 6a.KFb Signal Conditioner

  Entity Parameters:

  Uo = 24.16V Io = 108.7mA Po = 655.3mW Ci = 0 Li = 0

  a = 24 or 25
  b = X, R or E

DQD 507 Rev. 2016-02-18 Page 1

Certificate: 1855542 **Master Contract:** 153857
Project: 70077518 **Date Issued:** 2016-06-17

SCAN 693.KFa VEGASCAN Signal Conditioner

Entity Parameters:

Uo = 24.16V Io = 108.7mA Po = 655.3mW Ci = 0 Li = 0

a = R or E

- VEGAMET 391 series, Operating voltage 20V-250V AC/DC, Power consumption 7VA, 3W; Certified as Associated Intrinsically Safe Apparatus with Entity parameters for connection to Class I, II, and III, Division 1, Groups A, B, C, D, E, F and G, when installed in accordance with Control Drawing GE2564 at an ambient temperature range of -20°C to 60°C.

MET 391CX-abc. Signal Conditioner.

Entity Parameters (Terminals 1, 2):

Uo = 24.2 V Io = 110 mA Po = 662 mW Ci = 0 Li = 0

a = Version: Z or H
b = Interfaces: X, R or E
c = Mounting: X, H

Note: The signal conditioner shall be installed using wiring methods allowed by the CEC, or NEC, or subjected to acceptance by the Authority having jurisdiction.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

Suitable for use in Class I, Division 2, Groups A, B, C and D;

- VEGAMET 624, VEGAMET 625 and VEGASCAN 693, Operating voltage 20V-250V AC/DC, Power consumption 10VA, 5.5W; Ambient temperature range of -20°C to +60°C.

Plug Socket to VEGA a 6b.KF

a = SCAN or MET
b = If a = SCAN then b = 93
If a = MET then b = 24 or 25

MET 6a.KXb Signal Conditioner

a = 24 or 25
b = X, R or E

Certificate: 1855542 **Master Contract:** 153857
Project: 70077518 **Date Issued:** 2016-06-17

SCAN 693.KXa VEGASCAN Signal Conditioner

a = R or E

Note: The equipment shall be installed using wiring methods allowed by the CEC, or NEC, or subjected to acceptance by the Authority having jurisdiction.

CLASS 2252 03 - PROCESS CONTROL EQUIPMENT
CLASS 2252 83 - PROCESS CONTROL EQUIPMENT - Certified to U.S. Standards

- VEGAMET 624, VEGAMET 625 and VEGASCAN 693 series Signal Conditioner, Operating voltage 20V-250V AC/DC, Power consumption 10VA, 5.5W; indoor locations and ambient temperature range of -20°C to 60°C. Installation Category II, Pollution Degree 1.

MET 6a.KFb Signal Conditioner

a = 24 or 25
b = X, R or E

MET 6a.KXb Signal Conditioner

a = 24 or 25
b = X, R or E

MET 6a.XXb Signal Conditioner

a = 24 or 25
b = X, R or E

SCAN 693.KFa VEGASCAN Signal Conditioner

a = R or E

SCAN 693.KXa VEGASCAN Signal Conditioner

a = R or E

SCAN 693.XXa VEGASCAN Signal Conditioner

a = R or E

Certificate: 1855542 **Master Contract:** 153857
Project: 70077518 **Date Issued:** 2016-06-17

APPLICABLE REQUIREMENTS

CSA Std C22.2 No. 0 -10	-	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 61010-1-04	-	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
CSA Std C22.2 No. 142-M1987 (R 2004)	-	Process Control Equipment
CSA Std C22.2 No. 157-M1992 (R 2006)	-	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
CSA Std C22.2 No. 213-M1987 (R 2004)	-	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA E60079-0: 2002	-	Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
CAN/CSA E60079-11: 2002	-	Electrical Apparatus for Explosive Gas Atmospheres – Part 11: Intrinsic safety "i"
UL Std. No. 61010-1 (2nd Edition)	-	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
FM 361	-	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, & III, Division 1, and Class I, Zone 0 & 1 Hazardous (Classified) Locations
FM 3611: 2004	-	Nonincendive Electrical Equipment for Use in Class I, Division 2, and Class III, Divisions 1 and 2, Hazardous (Classified) Locations
FM 3810: 2005	-	Electrical and Electronic Test, Measuring and Process Control Equipment
FM 3600: 1998	-	Electrical Equipment for Use in Hazardous (Classified) Locations – General Requirements

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.

(1) Submittor's name, trademark, or the CSA file number MC "153857" (adjacent the CSA Mark).
(2) CSA Monogram with C/US indicators.
(3) Catalogue / Model designation.

(4) Complete electrical rating (amps, hertz, and volts).
(5) Date code / Serial number traceable to month and year of manufacture.
(6) Hazardous Location designation: Class I, Div 1 and 2, Groups A, B C, D; (May be optionally marked with the additional Zone markings (e.g. Class I, Zone 1 and 2, IIC).
(7) The Symbol "[Exia]" and "[AExia]"
(8) Reference to Installation Instructions.
(9) Temperature code.
(10) Maximum ambient.
(11) The following warnings:
WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2
WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS (or the equivalent)

Markings per Std. 61010

1. The submittor's name.
2. Model designation.
3. Electrical ratings: Input and output.
4. Date of manufacture.
5. Temperature rating.
6. The CSA Monogram
7. Field connection identification.
8. AC terminals.
9. The IEC 348 symbol ⚠ indicating "Attention: Consult Accompanying Documents".
10. For relays REL1- RLY4, the following wordings appear in the interconnect wiring diagram:
THESE RELAYS ARE CERTIFIED FOR USE IN EQUIPMENT WHERE THE POWER IS LIMITED BY A TRANSFORMER, RECTIFIER, VOLTAGE DIVIDER OR A SIMILAR DEVICE (OVERLOAD DEVICES AND FUSES EXCLUDED) AND WHERE THE SHORT CIRCUIT LIMIT BETWEEN CONDUCTORS OR BETWEEN CONDUCTORS AND GROUND IS 1500VA OR LESS AND WHERE A FIRE HAZARD WILL NOT RESULT FROM SHORT CIRCUIT."

The following wordings shall appear in the Manual and on a label physically located on the front of the equipment in a location visible at all times:
"DISCONNECT THE POWER BEFORE ACCESS"

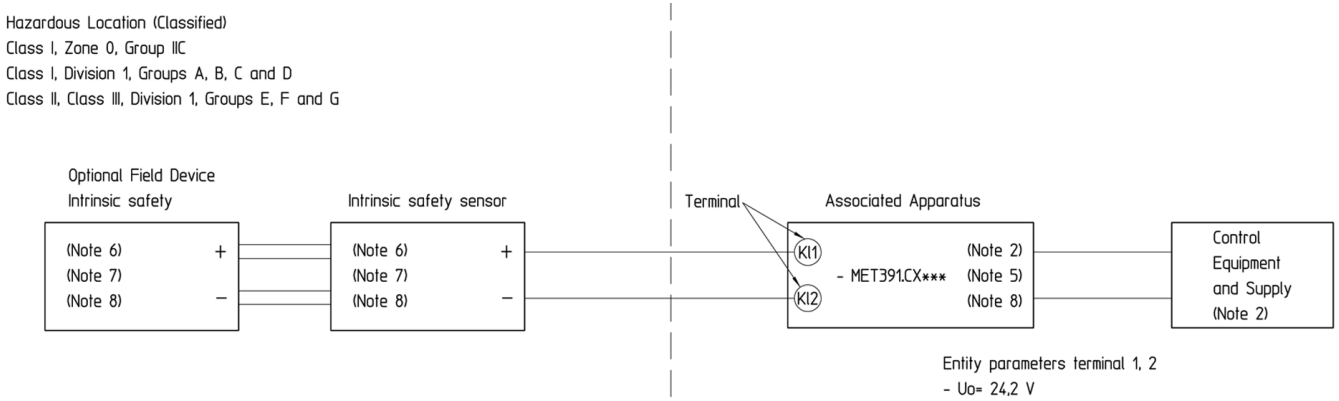
Supplement to Certificate of Compliance

Certificate: 1855542 **Master Contract:** 153857

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
70077518	2016-06-17	Update to Report and Certificate 1855542 to include updated label and schematic drawings for VEGAMET and VEGASCAN model series.
70000608	2013-03-08	Update to report 1855542 to include new label drawing
2525503	2012-12-12	Update of Report 1855542 to add CSA Certification of VEGAMET 391 Universal signal conditioning instrument.
2515396	2012-09-20	Update of Report 1855542 to include CSA-US certification.
2413875	2011-04-08	Update of report 185542 to add label drawing GE2761 for the KX approval under Class 2258- 02.
2314173	2010-07-15	Update Report to list model codes "kF", "KX"and "XX" under Class 2252 03.
2241780	2010-02-12	Update of report 1855542 to include VEGAMET 624/625 VEGASCAN 693 under the Class 2258-02.
2132772	2009-06-25	Update of Report 1855542 to include General Location certification to CSA std. 61010.
1855542	2007-06-22	Original Certification



Entity parameters terminal 1, 2
- Uo= 24,2 V
- Io= 110 mA
- Po= 662 mW
- Ci= 0
- Li= 0

Notes:

1. The Intrinsic Safety Entity concept allows the interconnection of two Intrinsically safe devices FM Approved and CSA Certified entity parameters not specifically examined in combination as a system when: Uo or Voc or Vt < Vmax, Io or Isc or It < Imax, Ca or Co > Ci + Ccable, La or Lo > Li + Lcable, Po < Pi.
2. Control equipment connected to the Associated Apparatus shall not use or generate more than 250 Vrms or Vdc.
3. Division 1 installations should be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" and the National Electrical Code® (ANSI/NFPA 70) or Canadian Electrical Code.
4. For Division 1 installations, the configuration of associated Apparatus shall be FM Approved/CSA Certified under Entity Concept.
5. Field sensors/device manufacturer's installation drawing shall be followed when installing this equipment.
6. The configuration of Field Device must be FM Approved/CSA Certified under Entity Concept.
7. The Field Device manufacturer's installation drawing shall be followed when installing this equipment.
8. No revision to drawing without prior Approval by FM Approvals and CSA International.

The capacidance Co and Inductance Lo of the cables must be restriced to the following valves:

Group	Co (nF)	Lo (mH)
A, B (IIC)	122	2,7
C, D (IIB)	910	11
E, F, G (IIA)	3270	22

Printing date:

40693-EN-160701

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

Phone +49 7836 50-0
Fax +49 7836 50-201
E-mail: info.de@vega.com
www.vega.com