Certificate of Compliance

Certificate: 2672226 **Master Contract:** 248490 (248490)

Project: 70085761 **Date Issued:** 2016-07-01

Issued to: **Schischek GmbH Explosionsschutz**
45 Muhlsteig Gewerbegebiet V
Langenzenn, 90579
GERMANY

Attention: Arno Butzke

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: *Salvatore Grasso*
Salvatore Grasso

PRODUCTS

CLASS - C2258 02 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-
CLASS - C2258 82 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

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

Ex nA IIC Gc

Pressure sensor monitor, model RedBin-P-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66

Where:
a = upper pressure range in Pascals (100, 500 or 5000)
b = number of relay outputs (blank = 1, 2 = 2)
c = paint type (blank = standard, CT = C5M or OCT = offshore)

Frost protection monitor, model RedBin-FRa, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, $-20°C \leq T_{amb} \leq 50°C$, T6, IP66

Where:
a = temperature sensor capillary length in meters (3 or 6)

Pressure sensor monitor, model RedCos-P-a-b, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, $-20°C \leq T_{amb} \leq 50°C$, T6, IP66

Where:
a = upper pressure range in Pascals (100, 250, 500, 1250, 2500, 5000 or 7500)
b = paint type (blank = standard, CT = C5M or OCT = offshore)

Pressure sensor monitor, model RedReg-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, $-20°C \leq T_{amb} \leq 50°C$, T6, IP66

Where:
a = measurement type (P = differential pressure or V = volume flow controller)
b = output options (blank, A = additional feedback signal or B = RS485 communications)
c = paint type (blank = standard, CT = C5M or OCT = offshore)

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

Class I, Division 2, Groups A, B, C and D
Class I, Zone 2, AEx nA IIC Gc

Pressure sensor monitor, model RedBin-P-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, $-20°C \leq T_{amb} \leq 50°C$, T6, IP66

Where:
a = upper pressure range in Pascals (100, 500, 5000)
b = number of relay outputs (blank = 1, 2 = 2)
c = paint type (blank = standard, CT = C5M or OCT = offshore)

Frost protection monitor, model RedBin-FRa, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, $-20°C \leq T_{amb} \leq 50°C$, T6, IP66

Where:
a = temperature sensor capillary length in meters (3, 6)

Pressure sensor monitor, model RedCos-P-a-b, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66

Where:
a = upper pressure range in Pascals (100, 250, 500, 1250, 2500, 5000, 7500)
b = paint type (blank = standard, CT = C5M or OCT = offshore)

Pressure sensor monitor, model RedReg-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66

Where:
a = measurement type (P = differential pressure, V = volume flow controller)
b = output options (A = additional feedback signal, B = RS485 communications)
c = paint type (blank = standard, CT = C5M or OCT = offshore)

CLASS - 2258 04 PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations

Class I, Division 2, Groups A, B, C and D
Ex nA [ia Ga] IIC Gc

Sensor monitoring equipment, model RedBin-a-b-c-d, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66 providing associated intrinsically safe circuits when installed per control drawing XA_RedBin.

Where:
a = sensor type (N = Namur, D = thermostat / hygrostat, A = simple apparatus)
b = number of relay outputs (1, 2, 5)
c = paint type (blank = standard or CT = C5M)

IS Value (max)	RedBin-N	RedBin-D	RedBin-A
U_o	9.6 V	7.9 V	7.14 V
I_o	9.7 mA	6.4 mA	8 mA
P_o	24 mW	12.7 mW	15 mW
L_o	0 mH	0 mH	0 mH
C_o	0 µF	0 µF	0 µF

Sensor monitoring equipment, model RedCos-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66 providing associated intrinsically safe circuits when installed per control drawing XA_RedCos.

Where:
a = sensor type (D = temperature / humidity, A = simple apparatus)
b = optional remote display (blank = not present, A = present)
c = paint type (blank = standard or CT = C5M)

IS Value (max)	RedCos-D	RedCos-A
U_o	7.9 V	7.9 V
I_o	48 mA	6.4 mA
P_o	95 mW	12.7 mW
L_o	0 mH	0 mH
C_o	0 µF	0 µF

Sensor monitoring equipment, model RedReg-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66 providing associated intrinsically safe circuits when installed per control drawing XA_RedReg.

Where:
a = Sensor type (D = temperature / humidity, A = simple apparatus)
b = output options (A = additional feedback signal, B = RS485 communications)
c = paint type (blank = standard, CT = C5M or OCT = offshore)

IS Value (max)	RedReg-D	RedReg-A
U_o	7.9 V	7.9 V
I_o	48 mA	6.4 mA
P_o	95 mW	12.7 mW
L_o	0 mH	0 mH
C_o	0 µF	0 µF

CLASS - 2258 84 PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations

Class I, Division 2, Groups A, B, C and D
Class I, Zone 2, AEx nA [ia Ga] IIC Gc

Sensor monitoring equipment, model RedBin-a-b-c-d, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66 providing associated intrinsically safe circuits when installed per control drawing XA_RedBin.

Where:
a = sensor type (N = Namur, D = thermostat / hygrostat, A = simple apparatus)
b = number of relay outputs (1, 2, 5)
c = paint type (blank = standard or CT = C5M)

IS Value (max)	RedBin-N	RedBin-D	RedBin-A
U_o	9.6 V	7.9 V	7.14 V
I_o	9.7 mA	6.4 mA	8 mA
P_o	24 mW	12.7 mW	15 mW
L_o	0 mH	0 mH	0 mH
C_o	0 µF	0 µF	0 µF

Sensor monitoring equipment, model RedCos-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66 providing associated intrinsically safe circuits when installed per control drawing XA_RedCos.

Where:
a = sensor type (D = temperature / humidity, A = simple apparatus)
b = optional remote display (blank = not present, A = present)
c = paint type (blank = standard or CT = C5M)

IS Value (max)	RedCos-D	RedCos-A
U_o	7.9 V	7.9 V
I_o	48 mA	6.4 mA
P_o	95 mW	12.7 mW
L_o	0 mH	0 mH
C_o	0 µF	0 µF

Sensor monitoring equipment, model RedReg-a-b-c, rated 24 VAC/VDC, Class 2 SELV, 50/60 Hz, 4 watts, -20°C ≤ T_{amb}≤50°C, T6, IP66 providing associated intrinsically safe circuits when installed per control drawing XA_RedReg.

Where:
a = Sensor type (D = temperature / humidity, A = simple apparatus)
b = output options (A = additional feedback signal, B = RS485 communications)
c = paint type (blank = standard, CT = C5M or OCT = offshore)

IS Value (max)	RedReg-D	RedReg-A
U_o	7.9 V	7.9 V
I_o	48 mA	6.4 mA
P_o	95 mW	12.7 mW
L_o	0 mH	0 mH
C_o	0 µF	0 µF

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 *August 2011*	General requirements — Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 61010-1-12 (May 2012)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
CAN/CSA C22.2 No. 157-92 (Reaffirmed 2012)	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
CSA C22.2 No. 213-M1987 (Reaffirmed 2008)	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA-C22.2 No. 60079-0:11 (December 2011)	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-11:11 (December 2011)	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA-C22.2 No. 60079-15:12 (January 2012)	Electrical apparatus for explosive gas atmospheres — Part 15: Construction, test and marking of type of protection “n” electrical apparatus
CAN/CSA-C22.2 No. 60529:05 (July 2005)	Degrees of protection provided by enclosures (IP Code)
ANSI/UL 61010-1 Third Edition (May 11, 2012)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
ANSI/UL 913 (Seventh Edition, Dated July 31, 2006. With revisions through and including September 23, 2011)	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations
ANSI/ISA-12.12.01-2012	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations.
ANSI/UL 60079-0-2009 Fifth Edition (October 21, 2009)	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-11-2011 Fifth Edition (May 5, 2011)	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i”
ANSI/UL 60079-15-2009 Third Edition (July 17, 2009)	Electrical Apparatus for Explosive Gas Atmospheres – Part 15: Construction, Test and Marking of Type of Protection “n” Electrical Apparatus
ANSI/IEC 60529-2004	Degrees of protection provided by enclosures (IP Code)

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.

Nameplate adhesive label material approval information:

The following markings are provided on a CSA Accepted (Class 7923.01) or UL Recognized to Canadian requirements (PGJI8) and UL Recognized (PGJI2) or CSA Accepted to US Standards (Class 7923.81) adhesive nameplate, used with the printer and ribbon specified in the Listing, and is suitable for indoor and outdoor use on powder coated aluminum, at a maximum service temperature of 85°C or higher. Nameplate is affixed to the front of the equipment.

All models:

- Manufacturer's name: "Schischek", or CSA Master Contract Number "248490", adjacent to the CSA Mark in lieu of manufacturer's name.
- Certification reference CSA13.2600804 *(optional).*
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in YYCW format, or serial number, traceable to year and calendar week of manufacture.
- Enclosure ingress protection: As specified in the PRODUCTS section, above.
- The CSA Mark with or without "C" and "US" indicators, as shown on the Certificate of Conformity.
- Hazardous Location designation: As specified in the PRODUCTS section, above *(may be abbreviated).*
- Method of Protection markings: As specified in the PRODUCTS section, above.
- Temperature code: As specified in the PRODUCTS section, above.
- ISO 60417, Symbol 5019 ⏚ adjacent to the equipment ground (protective conductor) terminal.
- ISO 60417, Symbol 5031 ⎓ adjacent to the DC input terminal rating.
- ISO 60417, Symbol 5032 ∼ adjacent to the AC input terminal rating. *(optional)*
- The following words:
  - "WARNING – EXPLOSION HAZARD - Substitution of components may impair suitability for Class I, Division 2."
  - "WARNING – EXPLOSION HAZARD – Do not connect while circuit is live unless area is known to be nonhazardous."

Model types -D, -A or -N only:

- The following words:
  - "[Ex ia]" *(near the CSA mark).*
  - The words: "ASSOCIATED EQUIPMENT" *(near the CSA mark).*
  - "WARNING: Substitution of components may impair intrinsic safety."
    - "Install per drawing XA_RedBin or XA_RedCos or XA_RedReg" as defined in the PRODUCTS section, above.

An installation manual or data sheet shall be supplied with each unit, containing the following minimum marking information:

- Manufacturer's name and address
- Electrical ratings: As specified in the PRODUCTS section, above.
- Specification for appropriate wiring to the connector, including definition of pin functions, and specification for wire gauge.
- Mounting and installation instructions, including dimensions.
- The following words, or suitable equivalent:
  - This equipment is suitable for installation in Class I, Division 2, Group A, B, C, D hazardous locations or nonhazardous locations only.
  - WARNING - Explosion Hazard. Do not connect or disconnect this equipment unless power has been removed or the area is known to be nonhazardous.
  - WARNING - Explosion Hazard. Substitution of components may impair suitability for Class I, Division 2.

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".

Supplement to Certificate of Compliance

Certificate: 2672226 **Master Contract:** 248490 (248490)

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
70085761	2016-07-01	Update report 2672226 to add Class numbers 4418 05 and 4418 85 as well as Category Codes QCRV2 and QCRV8 to the Cable Gland section. Updated the following drawings file names (the file name was the only change): XA_RedBin replaces XA.RB.01.01 XA_RedReg replaces XA.RR.01.01 XA_RedCos replaces XA.RC.01.01
70058494	2016-02-01	Evaluation to update Report 2672226 to include updated drawings in order to align ATEX models/drawings with North American models/drawings.
70050097	2015-11-18	Evaluation to update Report 2672226 to include a change to CSA descriptive report section “Construction”, page 10; to include: "Cable Connector (all models, having associated IS circuits only) – Type 763 manufactured by Binder rated 125V, -40° to 85°C, suitable for up to 18 AWG wire or any UL Recognized (ECBT2) and UL Recognized for Canada (ECBT8) rated 125V, -40° to 85°C, suitable for up to 18 AWG wire."
2672226	2013-11-21	Evaluation for possible CSAc- us Certification of RedBin, RedCos and RedReg - series for CL I, Div 2, Grps ABCD & CL I, Zone 2: Ex/AEx nA IIC; IP66