



Certificate of Compliance

Certificate: 70010892

Master Contract: 257340

Project: 70015643

Date Issued: December 19, 2014

Issued to: R. STAHL Camera Systems GmbH
Im Gewerbegebiet Pesch 14
Koeln / Cologne, Nrth Rhine Westfalia 50767
Germany
Attention: Werner Bertges

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: *Rawn Murphy*
Rawn Murphy

PRODUCTS

CLASS - C225882 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards
CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-

Ex m IIC T4 Gb (Canada only)
Class III, Division 1; Class II, Division 1, Groups E, F, and G (Canada only)
Class I Zone 1 AEx mb IIC T4 Gb (USA only)
Zone 21 AEx mb IIIC T125°C Db (USA only)

Class I, Division 2 Groups A, B, C, D (Canada and USA)

Model EC-710-*aaab* Series camera, Type “m” Encapsulation, rated 13.2 Vdc max (12 Vdc ± 10%), 250mA maximum powered by a SELV (Class 2) supply; for fixed installation and provided with a permanently connected cable; Install per drawing number 20140781000; Ambient Temperature -40 °C to +75 °C.



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Where:

Model Code String	Definition
<i>aaa</i>	012, 023, 033, 044, 052, 070, or 081; horizontal angle of view (by °)
<i>b</i>	video format (P = PAL, N = NTSC); not relevant to CSA certification

Conditions of Use/ Note:

- 1) The apparatus shall be powered by a certified SELV (Class 2) power source, rated 13.2 Vdc max (12 Vdc \pm 10%), having the free end of the Zone 1 (Division 1) cable permanently connected in a suitable manner either to an Ex e or Ex d junction box or into the safe area.
- 2) The certified SELV (Class 2) power source shall be combined with a series-connected certified 250 mA fuse, also installed in an Ex e or Ex d junction box or into the safe area, having a breaking capacity rating suitable for the short circuit current of the supply.
- 3) The equipment, specifically the permanently connected cable run from the camera head through the free end, shall be permanently protected using a method as per Class I, Zone 1 (Class I, Division 1) wiring practices per the Canadian Electrical Code®, CEC Part 1, Appendixes J and F and the National Electrical Code®, Section 501 (i.e., threaded rigid metal conduit, threaded steel intermediate metal conduit, etc).
- 4) The equipment, specifically the permanently connected cable run from the camera head through the free end, shall be permanently protected using a method as per Class I, Division 2 wiring practices per the Canadian Electrical Code®, CEC Part 1, Appendixes J and F and the National Electrical Code®, Section 501 (i.e., Type PLTC/ Type PLTC-ER cable, ITC and Type ITC-ER cable, Zone 1/ Division 1 wiring methods, etc).

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	General Requirements - Canadian Electrical Code, Part II
CSA-C22.2 No. 142-M1987	Process Control Equipment
CAN/CSA-C22.2 No. 60079-0:11	Explosive atmospheres — Part 0: Equipment — General requirements
CAN/CSA-C22.2 No. 60079-18:12	Explosive atmospheres — Part 18: Equipment protection by encapsulation “m”
CSA-C22.2 No. 213-M1987	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations - Industrial Products
UL Standard 508 (<i>Seventeenth Edition</i>)	Industrial Control Equipment
ANSI/ISA-60079-0 (12.00.01)-2013	Explosive atmospheres — Part 0: Equipment — General requirements
ANSI/ISA-60079-18 (12.23.01)-2012	Explosive atmospheres — Part 18: Equipment protection by encapsulation “m”
ANSI/ISA-12.12.01-2013	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations



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The following standards were used only in part as a guideline:

IEC 60079-0:2007	Explosive atmospheres — Part 0: Equipment — General requirements
IEC 60079-18:2009	Explosive atmospheres — Part 18: Equipment protection by encapsulation “m”

MARKINGS



The manufacturer is required to apply the following markings (CSA C22.2 No. 0-10, Clause 6.3):

- 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 following itemized marking requirements shall appear on a stainless steel nameplate tag secured to the cable connection side of the camera enclosure:

The stainless steel nameplate tag appearing on the cable connection side of the camera enclosure shall have the following -

- Manufacturer’s name, “R. STAHL Camera Systems GmbH”, “R. STAHL Camera Systems” or in lieu of Manufacturer’s name, CSA Master Contract Number “257340” adjacent to the CSA Mark.
- Model number: as specified in the PRODUCTS section.
- The CSA Mark, as shown on page 1 of the Certificate of Conformity.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Hazardous Location designation and Temperature Code: as specified in the PRODUCTS section, above.
- Ambient temperature rating: as specified in the PRODUCTS section, above (may be abbreviated).
- Manufacturing date in MMY format, or serial number, traceable to month of manufacture.
- The following cautions and warnings in English and French -
 - “ Install per drawing number “2014 07 8100 0”.
 - “ See manual DS0181280 before operating”.

Additional for Zone 1 Only -

- “14.70010892X”, this certificate number shall be adjacent to the CSA Mark.
- The following cautions and warnings in English and French -

Additional for For Division 2 Only -

- The following cautions and warnings in English and French (may appear on the Division 2 label and/ or in the manual)–
 - “WARNING – DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED”
 - “WARNING – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR DIVISION 2 FOR CLASS I, DIVISION 2”







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- The INSTRUCTION/ OPERATOR’S MANUAL shall contain the following minimum information:
 - The apparatus shall be powered by a certified SELV (Class 2) power source, rated 13.2 Vdc max (12 Vdc \pm 10%), having the free end of the Zone 1 (Division 1) cable permanently connected in a suitable manner either to an Ex e or Ex d junction box or into the safe area.
 - The certified SELV (Class 2) power source shall be combined with a series-connected certified 250 mA fuse, also installed in an Ex e or Ex d junction box or into the safe area, having a breaking capacity rating suitable for the short circuit current of the supply.
 - The equipment, specifically the permanently connected cable run from the camera head through the free end, shall be permanently protected using a method as per Class I, Zone 1 (Class I, Division 1) wiring practices per the Canadian Electrical Code®, CEC Part 1 (2012), Appendixes J and F and the National Electrical Code® (2014), Section 501 (i.e., threaded rigid metal conduit, threaded steel intermediate metal conduit, etc).
 - The following cautions and warnings in English and French –
 - “ SEE MANUAL BEFORE OPERATING” OR “ WARNING: UNDERSTAND MANUAL DS0181280 BEFORE OPERATING” (This literature shall accompany each apparatus).
 - “ Install per drawing number “2014 07 8100 0”.
 - “ Camera must be connected to a fuse 250 mA slow blow.”



Supplement to Certificate of Compliance

Certificate: 7001089270010892

Master Contract: 257340257340

*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
70015643	Dec 19 2014	Update to report number 70010892 to include further clarifications specifying the Class I, Division 2 wiring per the CEC/ NEC with revision to control drawing 2014 07 8100 1.
70010892	Oct 24 2014	Original Certification.