



Certificate of Compliance

Certificate: 70009910

Master Contract: 261724

Project: 70049260

Date Issued: December 9, 2015

Issued to: Bartec Pixavi AS
Domkirkeplassen 2
4006 Stavanger
Norway

Attention: Mr Christian Rokseth

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:

David Holton
David Holton

PRODUCTS

Class 2228 01- RADIO APPLIANCES - Transmitters and Receivers, Amateur, Commercial and Communication
- For Hazardous Locations

Ex ib op is IIC T4 Gb

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

Class 2228-81: RADIO APPLIANCES - Transmitters and Receivers, Amateur, Commercial and Communication
- For Hazardous Locations - Certified to U.S. Standards

Class I, Zone 1, AEx ib op is IIC T4 Gb

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

Impact X and Gravity X: portable, battery-powered, hazardous location Smartphones. $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +45^{\circ}\text{C}$.

Intrinsically safe with entity parameters as follows:

- Headset port: $U_0 = 9.5\text{V}$, $I_0 = 1.502\text{A}$, $P_0 = 1.565\text{W}$, $C_0 = 3.5\mu\text{F}$, $L_0 = 14.7\mu\text{H}$
- USB port: data transfer in hazardous location: $U_0 = 5.3\text{V}$, $I_0 = 2.757\text{A}$, $P_0 = 2.872\text{W}$

The USB port may also be used in a non-hazardous location for charging and data transfer: $U_m = 5.8\text{V}$.



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Conditions of Acceptability

- i. The ambient temperature range of the equipment is -20°C to +45°C.
- ii. The equipment shall be protected from contamination by liquid and dust; this is normally achieved by the operator carrying the device on their person.
- iii. The USB port shall only be used for charging the equipment when in the non-hazardous area. The equipment shall only be charged using a charger specifically supplied for use with the unit:
 - part number USB-AC35M, manufactured by Deltaco
 - part number 1001-0007, manufactured by Ansmann
 - part number WR9QA890USB-N(RVB), model number GT-41078-0506-0.4-USB, manufactured by Glob Tek
 - part number WR9QA1000USB-N(R), model number GT-41078-0505-USB, manufactured by Glob Tek

The maximum input voltage (Um) from the charger between the lines is 5.8 V. The ambient temperature during charging shall be in the range 0°C to 45°C. The charger shall be approved for use in USA/Canada against CSA/UL 60950-1 or equivalent.

- iv. The USB port is also used for data download. The port has been assessed with a Um of 5.8 V. The equipment connected to the USB port shall be approved for use in USA/Canada against CSA/UL 60950-1 or equivalent.

APPLICABLE REQUIREMENTS

C22.2 No. 0-10	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 60079-0:2011	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:2014	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"
C22.2 No. 213-M1987 (reaffirmed 2013)	Non-incendive electrical equipment for use in class I, division 2 hazardous locations
ANSI/UL 60079-0:2013	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-11:2013	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"
ANSI/ISA-60079-28-2013, Edition 1.1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
ANSI/ISA-12.12.01-2013	Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations



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
70009910	2014-09-19	Original Certification of the Impact X and Gravity X
70014323	2014-12-10	Introduction of "Class I, Division 2, Groups A, B, C, D" marking
70049260	2015-12-09	Report 70009910 was amended to include the following alterations: <ul style="list-style-type: none">i. Increase in the value of Um from 5.5 V to 5.8 V, requiring a change to the product description and Conditions of Acceptability;ii. Additional chargers are listed in the Conditions of Acceptability;iii. UBlox TOBY L2x0 is specified as an alternative 3G radio module;iv. Minor electrical and mechanical changes;v. 'Zone 1' added to the USA marking and 'Class I' removed from the marking for Canadavi. Correction of product listing to add 'op is' to the certification codevii. Assessment against ANSI/ISA-12.12.01-2013 and C22.2 No. 213-M1987 to further justify Division 2 marking introduced in Edition 2.