



Certificate of Compliance

Certificate: 2679735

Master Contract: 259248 (259248)

Project: 70178172

Date Issued: 2018-04-23

Issued to: Autronica Fire and Security AS
P.O Box 5620
Trondheim, NO-7483
NORWAY
Attention: Kare Hoy

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: *Waleed Irfan*
Waleed Irfan

PRODUCTS

CLASS - C225803 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

CLASS - C225883 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive-Systems-For Hazardous Locations-Certified to U.S. Standards

Fire Detection System (consisting of loop driver, call points, heat and smoke detectors, interface and shunt protection unit).

Ex ia IIC T5 Ga

Class I, Zone 0, AEx ia IIC T5 Ga

Call Points, Heat, Smoke Detectors and Input Unit

BDH-500/EX, BD-501/EX, BHH-500/EX, BHH-500/S/EX, BHH-520/EX, BF-500V2/EX, BF-501/EX, BF-502/EX, BF-503/EX/0100, BF-503/EX/0200, BF-503/EX/0300, BF-503/EX/0400, BF-503/EX/0500, BN-500/EX

Ui = 15.75V

Ci = 21.6nF

Ii = 63.5mA

Li = 0μH

Pi = 0.44W



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Conditions of Certification

1. The surface of the of isolating material exceeds the limit 4cm^2 as specified in IEC 60079-26 and the probability of electrostatic charging need to be considered for use in category 1 (Zone 0).
2. The equipment shall be connected to a certified intrinsically safe output circuit with output data not exceeding the above stated input values.

[Ex ic] IIB Gc; $-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$
[AEx ic] IIB Gc; $-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$

Loop Driver Intended for use with Call Points, Heat, Smoke Detectors and I/O-units type Bxx-yyy/N for use in Zone 2.

BSD-310/N ($-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$)

Ex ic IIB T4 Gc; $-20^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$ or $-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$
Class I, Zone 2, AEx ic IIB T4 Gc; $-20^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$ or $-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$

Loop Driver and Detectors – rated Lo/Ro: $30\mu\text{H}/\Omega$.

Manual Call Points:

BF-501/N, BF-502/N, BF-503/N/0100, BF-503/N/0200, BF-503/N/0300, BF-503/N/0400, BF-503/N/0500
($-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$)

I/O Units:

BN-500/N and BNB-300 ($-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$)

Heat Detector:

BDH-500/N and BD-501/N ($-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$)

Optical Smoke Detector:

BHH-500/N and BHH-500/S/N ($-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$)

Multisensor Smoke Detector:

BHH-520/N ($-20^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$)

Conditions of Certification

1. The loop driver module is intended for mounting in the AutoSafe Fire Alarm Control panel and connected to the power supply BSS-310A.
2. The loop driver module may only be used in locations sheltered from dust and water. The degree of protection is IP30D.
3. The ambient temperature differs from the normal range and is specified in the certificate.
4. The hardware circuit unit type BNB-300 must be mounted in an enclosure that complies with the requirements of IEC 60079-0, IEC 60079-7 or IEC 60079-11.



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[Ex ia] IIC Ga
Class I, Zone 0, [AEx ia] IIC Ga

Interface and Shunt Protection Unit

BZ-500: Complete enclosure with terminals, safety barrier and shunt unit BZB-500
BZ-500/2 or BZ-500/3: Containing two or three barriers and shunt units.
BZB-500: Shunt protection unit

Conditions of Certification

None.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	- General Requirements Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 205-12	- Signal Equipment
CAN/CSA-60079-0-11	- Electrical apparatus for explosive gas atmospheres; Part 0: General requirements
CAN/CSA-60079-11-11	- Electrical apparatus for explosive gas atmospheres; Part 11: Intrinsic safety "i"
CAN/CSA-C22.2 No. 60529-05	- Degrees of protection provided by enclosures (IP Code)
UL 464, 9 th Edition	- Safety Audible Signal Appliances
UL 60079-0, 6 th Edition	- Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
UL 60079-11, 6 th Edition	- Electrical Apparatus for Explosive Gas Atmospheres Part 11: Intrinsic Safety "i"
ANSI/IEC 60529:2004	- Degrees of Protection Provided by Enclosures (IP Code)
ANSI/ISA-60079-26: 2011	- Explosive atmospheres - Part 26: Equipment for Use in Class I, Zone 0 Hazardous (Classified) Locations

MARKINGS

See Descriptive Reports for details.



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
70178172	2018-04-23	Update to report 2679735 to capture a change in specification sheet for ordering circuit board. The change does not impact the construction or design of the product therefore no further evaluation or testing is deemed necessary.
70159953	2017-11-01	Update to report 2679735 to remove discontinued product BF-300M/N and BF-500/N and to update the product datasheets to reflect the latest revisions of IEC/EN standards directives.
70078808	2016-06-28	Update to report 2679735 to make an editorial change in descriptive report, markings Item 7 from: Reference to control drawing: BZ-091 Rev C and BS-1375 Rev C to Reference to control drawing: BZ-091 and BS-1375.
70040178	2015-10-06	Update to report 2679735 to include minor label and datasheet updates based on IEC revisions and some minor circuit revisions due to obsolete parts; cost does not include any testing if deemed necessary but includes report update and review of all drawing changes.
70017637	2015-01-23	Update to report 2679735 to update 30 drawings, within the descriptive documents list, related to label markings.
2679735	2014-02-19	New cCSAus certification of Flame Detection System (consisting of loop driver, call points, heat and smoke detectors, interface and shunt protection unit). Hazardous Location portion based on review and acceptance of IECEx Reports.