



Certificate of Compliance

Certificate: 80041978

Master Contract: 601366

Project: 80041978

Date Issued: April 27, 2020

Issued To Balluff GmbH
Schurwaldstrasse 9
Neuhausen a.d.F., Baden-Württemberg 73765
Germany

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: Maria Gomes

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 U.S. Standards

Class I, Division 1, Groups A, B, C, D T6...T3
Class II, Division 1, Groups E, F, G, T80°C; Class III, Division 1
Ex ia IIC T6...T3 Ga
Ex ia IIIC T80°C Da
Class I, Zone 0, AEx ia IIC T6...T3 Ga
Zone 20, AEx ia IIIC T80°C Da

The inductive proximity switches of the type: BES M*****-GNX***-B***-X06 and BES M*****-GNX***-S04G-X04 are used as contactless wear out- free limit switches. They are mounted inside gas-hazardous areas of Zone 0 or Zone 1, and inside dust-hazardous areas of Zone 20 or 21. They have to be connected to evaluation units of type BAE SA-XE-***-XR-SA39.



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Entity Parameters (Linear):

$V_{max}/U_i = 9.6$ VDC, $I_{max}/I_i = 12.1$ mA, $P_{max}/P_i = 29$ mW, $C_i = 66.2$ nF, $L_i = 1.2$ mH

Thermal Data:

For EPL Ga and Class I, Division 1: Ta: -20 Deg. C to +60 Deg. C; Temperature Code: T6...T3

For EPL Gb and Class I, Division 1: Ta: -25 Deg. C to +75 Deg. C; Temperature Code: T6...T3

For EPL Da and Db, and Class II/III, Division 1: Ta: -25 Deg. C to +75 Deg. C

Conditions of Acceptability:

1. The Instruction Manual must be consulted for technical data which are not included in the Ex-marking of the sensor (maximum values, ambient temperature ranges, manufacturer address).
2. For variants of device with plastic surface bigger than 400 mm² (gas) or 500 mm² (dust), the equipment shall not be installed in locations where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. When indicated, periodic cleaning should be done with a damp cloth.
3. The device must be protected against UV light.
4. End-user shall ensure proper earthing of the device upon installation.

Class I, Division 1, Groups A, B, C, D T6...T3

Class II, Division 1, Groups E, F, G, T145°C; Class III, Division 1

Ex ia IIC T6...T3 Ga

Ex ia IIC T145°C Da

Class I, Zone 0, AEx ia IIC T6...T3 Ga

Zone 20, AEx ia IIC T145°C Da

The inductive proximity switches of the type: BES M*****-GNX***-BT**-X05 is used as contactless wear out-free limit switch. It is mounted inside gas-hazardous areas of Zone 0 or Zone 1, and inside dust-hazardous areas of Zone 20 or 21, It has to be connected to evaluation units of type BAE SA-XE-***-XR-SA39.

Entity Parameters (Linear):

$V_{max}/U_i = 9.6$ VDC, $I_{max}/I_i = 12.1$ mA, $P_{max}/P_i = 29$ mW, $C_i = 66.2$ nF, $L_i = 1.2$ mH

Thermal Data:

For EPL Ga and Class I, Division 1: Ta: -20 Deg. C to +60 Deg. C; Temperature Code: T6...T3

For EPL Gb and Class I, Division 1: Ta: -25 Deg. C to +75 Deg. C; Temperature Code: T6

For EPL Gb and Class I, Division 1: Ta: -25 Deg. C to +90 Deg. C; Temperature Code: T5

For EPL Gb and Class I, Division 1: Ta: -25 Deg. C to +125 Deg. C; Temperature Code: T4

For EPL Gb and Class I, Division 1: Ta: -25 Deg. C to +140 Deg. C; Temperature Code: T3

For EPL Da and Db, and Class II/III, Division 1: Ta: -25 Deg. C to +140 Deg. C



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Conditions of Acceptability:

1. The Instruction Manual must be consulted for technical data which are not included in the Ex-marking of the sensor (maximum values, ambient temperature ranges, manufacturer address).
2. For variants of device with plastic surface bigger than 400 mm² (gas) or 500 mm² (dust), the equipment shall not be installed in locations where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. When indicated, periodic cleaning should be done with a damp cloth.
3. The device must be protected against UV light.
4. End-user shall ensure proper earthing of the device upon installation.

Class I, Division 1, Groups A, B, C, D T6...T3

Class II, Division 1, Groups E, F, G, T65°C; Class III, Division 1

Ex ia IIC T6...T3 Ga

Ex ia IIIC T65°C Da

Class I, Zone 0, AEx ia IIC T6...T3 Ga

Zone 20, AEx ia IIIC T65°C Da

The inductive proximity switches of the type: BES M*****-GNX***-BT**-X03 is used as contactless wear out-free limit switch. It is mounted inside gas-hazardous areas of Zone 0 or Zone 1, and inside dust-hazardous areas of Zone 20 or 21. It has to be connected to evaluation units of type BAE SA-XE-***-XR-SA39.

Entity Parameters (Linear):

$V_{max}/U_i = 9.6 \text{ VDC}$, $I_{max}/I_i = 12.1 \text{ mA}$, $P_{max}/P_i = 29 \text{ mW}$, $C_i = 66.2 \text{ nF}$, $L_i = 1.2 \text{ mH}$

Thermal Data:

For EPL Ga and Class I, Division 1: Ta: -20 Deg. C to +60 Deg. C; Temperature Code: T6...T3

For EPL Gb and Class I, Division 1: Ta: -60 Deg. C to +60 Deg. C; Temperature Code: T6...T3

For EPL Da and Db, and Class II/III, Division 1: Ta: -60 Deg. C to +60 Deg. C

Conditions of Acceptability:

1. The Instruction Manual must be consulted for technical data which are not included in the Ex-marking of the sensor (maximum values, ambient temperature ranges, manufacturer address).
2. For variants of device with plastic surface bigger than 400 mm² (gas) or 500 mm² (dust), the equipment shall not be installed in locations where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. When indicated, periodic cleaning should be done with a damp cloth.
3. The device must be protected against UV light.
4. End-user shall ensure proper earthing of the device upon installation.



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APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 60947-5-2-14	Low –voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements – Proximity switches
CAN/CSA-C22.2 No. 60079-0:15	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:14	Explosive Atmospheres - Part 11: Equipment protection by intrinsic safety "i"
UL 60947-5-2 Third Edition	Low –voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements – Proximity switches
ANSI/UL 60079-0:13	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-11:13	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"

MARKINGS

Each unit shall bear all the required markings identified in the applicable certification report(s).
Note: The Listee’s name and/or CSA file number shall replace the submittor’s equivalent information (where applicable).