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Certificate No: LR22120789TA Issue Date: 07/04/2022 Expiry Date: 21/04/2026

# **Type Approval Certificate**

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Abtech Ltd
Address	Newhall Road, Sheffield, S9 2QJ, United Kingdom
Туре	Enclosure Systems
Description	BPG, SX, and ZAG series types of Enclosures and Junction boxes for safe and hazardous areas
Trade Name	BPG, SX, and ZAG
Application	Marine, offshore, and industrial use
Specified Standard	Manufacturer's specification IEC60079-0: 2018,IEC60079-7: 2015, IEC60079-11: 2012 IEC60079-26: 2007, IEC60079-31: 2014
Ratings	Details see certificate appendix
Other Conditions	Special conditions for safe use, as indicated in the individual EX certificates, shall be complied with during application.

Ke Lin Zhang

Lead Specialist to Lloyd's Register Classification Society (China) Co Ltd A member of the Lloyd's Register group

12th Floor, Chong Hing Finance Centre, No. 288 Nanjing West Road, Shanghai, Huangpu District, 200003, China

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## **Type Approval Certificate**

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Classification Society (China) Co Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document LR22120789TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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## **Appendix**

#### **RATINGS**

## **BPG Range of and Enclosures:**

II 1 GD or II 2 GD or II2 GD

Ex ia II C Ga Ex ib IIC Gb Ex ib IIC Gb

Ex ta IIIC Da Ex tb IIIC Db Ex tb IIIC Db

 $T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -65 \text{ °C} \leq T_{s} \leq -90 \text{ °C} \qquad \qquad T_{s} = -90 \text{ °C} \qquad \qquad T_{s}$ 

Ex Certificate No.: CML 20ATEX3008U, issue: 0

## **BPG Range of Junction Boxes:**

II 1 GD or II 2 GD or II 2 GD

Ex ia II C T Ga Ex eb II C T Gb Ex ib II C T6/T5/T4 Gb

Ex ta IIIC T C Da Ex tb IIIC T C Db Ex tb IIIC T C Db

 $T_a = -65 \, ^{\circ}\text{C} \le T_a \le -90 \, ^{\circ}\text{C} \qquad \qquad T_a = -65 \, ^{\circ}\text{C} \le T_a \le -90 \, ^{\circ}\text{C} \qquad \qquad T_a = -65 \, ^{\circ}\text{C} \le T_a \le -90 \, ^{\circ}\text{C}$ 

Ex Certificate No.: CML20ATEX3009X, issue:0

#### **SX Range of Enclosures:**

SX Ref.: SX0, SX0.5, SX1, SX1.5, SX2, SX3, SX4, SX5, SX6, SX7, SX8, SX225, SX45, SX64, SX66

Group and category: II 2 GD

II 1 GD II 2 GD

Ex ia IIB/IIC Ga Ex eb IIB/IIC Gb

Ex ta IIIC Da Ex ib IIB/IIC Gb

Ex tb IIIC Gb

Ex Certificate No.: CML 15ATEX3078U, issue: 4

## SX Range of junction boxes:

SX Ref. : SX0, SX0.5, SX1, SX1.5, SX2, SX3, SX4, SX5, SX6, SX7, SX8, SX225, SX45, SX64, SX66

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EPL: Ga, Gb, Db, Da

II 1 GD II 2 GD II 2 GD

Ex ia IIB/IIC T# Gb Ex eb op pr IIB/IIC T# Gb

Ex ia op is IIB/IIC T# Ga Ex ib IIB/IIC T# Gb Ex ib op pr IIB/IIC T# Gb

Ex op is IIB/IIC T# Gb Ex ia op pr IIB/IIC T# Gb

Ex ta IIIC T#°C Da Ex ib op is IIB/IIC T# Gb Ex op pr IIB/IIC T# Gb

Ta= - #°C to +#°C Ex tb IIIC T#°C Db Ex tb IIIC T#°C Db

Ex Certificate No.: CML 14ATEX3123X, issue: 7

#### **ZAG Range of Enclosures:**

II 1 GD or II 2 GD or II2 GD

Ex ia II C Ga Ex eb IIC Gb Ex ib IIC Gb

Ex ta IIIC Da IP6X Ex tb IIIC Db IP6X Ex tb IIIC Db IP6X

Ts = -65°C to +180°C or -60°C to Ts = -65°C to +180°C or -60°C Ts = -65°C to +180°C or -60°C to +90°C

+90°C to +90°C

ZAG Reference: 2, 3, 4, 5, 6, 7, 8, 9, 9/9, 10, 10/9, 11, 12, 13, 14, 15, 16

Ex Certificate No.: CML21ATEX3136U, issue:0

### **ZAG Range of junction boxes:**

II 1 GD or II 2 GD or II2 GD

Ex ia IIC  $T_1$  Ga Ex eb IIC  $T_1$  Gb Ex ib IIC  $T_1$  Gb

ZAG Box Ref.: 2, 3, 4, 5, 6, 7, 9, 10, 10/9, 11, 12, 13, 15, 16; EPL: Ga Gb Db

Ex Certificate No.: CML21ATEX3113X, issue:0

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