

**Distribution Box Type 07-5101(2)**

CE 1304

## 1 Product description

The aluminium distribution boxes Type 07-5101(2)-.../... are used for connection and distribution of incoming and outgoing cables and wires with certified connecting and/or rail-mounted terminals. The enclosure is made up of Cast Aluminium AISi 12. The lid and base fastened with stainless steel captive screws ( $\pm$  cross-head)

A grooved spring system with inserted sealing chord in between the lid and the base provides for the high protection type IP66. The assembly of the distribution is done through the holes found outside of the sealed space.

The distribution boxes are used for connection of lights, devices and signals.

The boxes meet the relevant standards EN 60079-0, EN 60079-7, EN 60079-11 and EN 61241-0 and examined in accordance with EN ISO 9001 and EN 60999.

The distribution boxes are also suitable for intrinsically safe electric circuit's connections. In this case, special marking is required.

The BARTEC Varnost distribution boxes can be used in hazardous areas of both zone 1 and 2 with certified explosion sub-groups II and the temperature class T5/T6 and as well as in zone 21 and 22 with certified max. surface temperature.

## 2 Technical data

### Enclosure type/ material

Cast Aluminium AISi 12 Surface coated

### Lid screws

Stainless Steel (+/- Cross-head)  
Recommendable torque of screwing  
Screw M4  $\rightarrow$  ca. 1,2 Nm  
Screw M6  $\rightarrow$  ca. 1,4 Nm

### Seals

CR - 20 °C bis + 80 °C  
EPDM - 20 °C bis + 80 °C  
Silicone - 55 °C bis + 100 °C

**Mechanical strength** acc. EN 60079-0 and 61241-0

Impact energy 7 Nm

**Protection class acc. to EN 60529/IEC 60529**  
Max. IP 66

### Terminals

Certified connecting and/or rail-mounted terminals with a maximum rated voltage of 1000V AC/DC and a maximum cross-section of 120 mm<sup>2</sup> in accordance with attached sheet are used.

### Cable entries / Conduits

Connection of cables and conductors to the equipment in hazardous area require Ex-certified entries, which are suitable for the respective cable and conductor types.

They must possess the protection type "e" and contain a suitable sealing gasket, so that the protection class of the control station remains at least IP 54. Metallic conductor entries must be connected to the ground.

Unused holes for cable entries have to be sealed with Ex-certified plugs. Connection of cables and conductors of zone 21 and 22 equipment require at least the protection class IP 65.

### Rated voltage

Max. 1000 V AC/DC

### Rated current



See attached sheet

### Ambient temperature range

-55 °C  $\leq$  T<sub>a</sub>  $\leq$  +55 °C (T5 also for II 2 D T95°)  
-55 °C  $\leq$  T<sub>a</sub>  $\leq$  +40 °C (T6 also for II 2 D T80°)

## Explosion protection

### Protection type

 II 2 G Ex e II T6 or T5  
 II 2D Ex tD A21 IP 6X T80°C or T95°C

### Certification

IBExU00ATEX 1080 for II 2 D  
PTB 08 ATEX 1065 for II 2 G



### 3 Safety precautions

With electrical equipment, the installation and operating regulations are to be adhered (z. B. RL 1999/92/EG, RL94/9EG, IEC/EN60079-14, IEC/EN 61241-14 und DIN VDE0100).

The operator of the electrical equipment in hazardous area has to operate, supervise and maintain the equipment in good condition ( EN 60079-14).

If any part of the equipment is damaged, it should be exchanged only with original parts (e.g. sealing gasket/cable glands). Assembly/disassembly, operation and maintenance work should be done only by trained technical personnel.

As for distribution boxes used in inflammable dust, the ignition temperature of the dust/air mixture and the glowing temperature of the dust concerned must be greater than the maximum surface temperature of the distribution box taking into account of the given safety factor specified in EN 61241-0.

All generally accepted legal rules and the other obligatory guidelines of industrial safety, accident prevention and environmental protection must be observed. Dust deposits > 5 mm must be removed.

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### 4 Assembly and operation

#### *Assembly/disassembly*

For assembly and operation of explosion-protected electrical equipment, relevant installation and operating regulations are to be adhered (z. B. BetrSichV, IEC/EN60079-14, IEC/EN 61241-14 und DIN VDE 0100). The data on the label, on the EEC design test and the parts certificate are to be observed. Further technical information of the Ex-distribution box is provided in the Bartec catalogue and on the product itself.

The assembly with connecting and/or rail-mounted terminals may be implemented only with consideration of the EEC design inspection certificate. The conductor connection is to be done carefully, so that the individual wires are not damaged.

When connecting multi or fine strand conductors, the wire ends must be carefully prepared. Fastening of the ferrules must be done with the suitable crimping devices, in order to achieve a constant pressure quality. All terminal positions, including the unused ones, are to be securely tightened.

For metallic enclosures in hazardous areas, an equipotential bonding of at least 4 mm<sup>2</sup> is necessary. The connections must be secured against self-loosening.

Metallic enclosures for intrinsically safe facilities do not have to be attached to an equipotential bonding system, except if it is required by equipment documentation.

#### *Installation*

For enclosures placed outdoors, steps such as rain protected roofs, and if necessary, sufficient enclosure protection must be taken to ensure smooth operation.

#### *Operation*

Each electrical equipment for hazardous area must be selected according to the individual installation conditions. The operation of the equipment is to take place only in intact and clean condition. Electrical equipment, before putting into operation, and at certain time intervals are to be subjected an examination by a electrical expert.

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## 5 Operation, maintenance and repair

The operator of the electrical equipment in hazardous area has to operate, supervise and maintain the equipment in good condition (EN 60079-14).

If any part of the equipment is damaged, it should be exchanged only with original parts (e.g. sealing gasket/cable gland).

Before restarting the equipment, the applicable regulations and guidelines must be observed. For maintenance and/or repair the provided safety regulations are to be adhered.

**WARNING - DO NOT OPEN WHEN ENERGIZED!**

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## 6 Accessories, spare parts

Accessories and spare parts refer to BARTEC catalogue.

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## 7 Service address

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