

**Distribution box 27-5452-.....**

**1 Product description**

The polyester distribution boxes Type 27-5452-..... are used for connections and distribution of incoming and outgoing cables and wires with certified connecting and/or rail-mounted terminals. The enclosure is made of glass-fibre reinforced polyester, aluminium or stainless steel.

The lid and base are fastened with stainless steel captive screws (+/- cross-head). A grooved spring system with inserted sealing chord in between the lid and the base provides for the high protection type IP 65. The assembly of the distributions is done through the holes found outside of the sealed space.

The distribution boxes are used for connecting lights, devices and signals. They meet the relevant standards EN 60079-0, EN 60079-7, EN 60079-11 and EN 61241-0, EN 61241-1 and are developed, manufactured and examined in accordance with EN ISO 9001 and EN 60999.

The distribution boxes are also suitable for BARTEC Trace Heating systems PSBL, PSB and HSB.

**2 Technical data**

**Material**

Glass-fibre reinforced polyester  
Type 27-5452 black RAL 9005  $R_o < 10^9 \Omega$   
Aluminium grey RAL 7001  
AlSi 12, Mg<thread - %  
Stainless Steel, brushed  
1.4301, AlSi304

**Lid screws**

Stainless steel, captive (+/-cross-head)

**Recommendable torque of screwing**

Screw M4 → ca. 1,2 Nm  
Screw M6 → ca. 1,4 Nm

**Rated voltage**

Max. AC 254V

**Rated current**

Max. 32A

**Ambient temperature range**

$-55\text{ °C} \leq T_a \leq +55\text{ °C}$  (T5) and Ex ia/ib IIC T6  
 $-55\text{ °C} \leq T_a \leq +40\text{ °C}$  (T6)  
 $-55\text{ °C} \leq T_a \leq +40\text{ °C}$  (T80°C) and by II 2D  
 $-55\text{ °C} \leq T_a \leq +55\text{ °C}$  (T95°C)

**Seals**

Silicone - 55 °C to + 100 °C

**Mechanical strength** acc. to EN 60079-0

Impact energy 7 Joule

**Protection type** acc. to EN 60529/IEC 60529

Max. IP 65

**Terminals**

Certified connecting and/or rail-mounted terminals BARTEC Trace Heating System PSBL, PSB and HSB are used.

**Cable entries/Conduits**

Connection of cables and conductors to equipment in the 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. With plastic enclosures, BARTEC Earth loc or appropriate ground plates serve the similar purpose. Unused holes for cable entries have to be sealed with Ex-certified plugs when the boxes are used in the hazardous area. Connection of cables and conductors of zone 21 and 22 or when used for BARTEC Trace Heating System PSBL, PSB or HSB the equipment require at least the protection class IP 65.

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### 3 Safety precaution

With electrical equipment, the installation and operating regulations are to be adhered (e.g. RL 1999/92/EG, RL94/9EG, IEC/EN 60079-14, IEC/EN 61241-14 and 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 distributions 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. Grey distribution box with surface resistance  $R_o > 10^{12} \Omega$  may be cleaned only with a wet cloth.

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### 4 Assembly and operation

#### *Assembly/disassembly*

For assembly and operation of explosion-proof electrical equipment, relevant installation and operating regulations are to adhere (e.g. IEC/EN60079-14, IEC/EN 61241-14 and DIN VDE 0100). The data on the label, on the EEC design test and the parts certificate are to be observed. Further technical information's of the Ex-distribution box are provided in the Bartec catalog and on the product itself.

The assembly with connecting and/or rail-mounted terminals may be implemented only with consideration of the appropriate data of the EEC design inspection certificate. The cable connection is to be accomplished carefully, so that the single 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 tightened firmly

#### *Installation*

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

#### *Operation*

Each electrical equipment for a 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 equipments, 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

With electrical equipment, the installation and operating regulations are to be adhered (e.g. RL 1999/92/EG, RL94/9EG, IEC/EN 60079-14 and 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.  
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.



**(DO NOT OPEN WHEN ENERGIZED!)**  
Only wet cleaning with gray distribution box

### When used for BARTEC Trace Heating System

PSBL	27-1580-*	KEMA 08 ATEX 0112
PSB	27-1680-*	KEMA 08 ATEX 0111
HSB	27-1780-*	KEMA 08 ATEX 0110

The corresponding operation manuals must be observed

Selection chart		
Designation	Description	⇒ Order no.
<b>Standard Polyester 07-5185</b> PTB 08 ATEX 1062U IBExU 00 ATEX1081	System 27-1680-..10/.... for one heating circuit for 2/3 heating circuits	27-5452-42111210 27-5452-44311210
<b>Aluminium 07-5180</b> PTB 08 ATEX 1063U IBExU 00 ATEX 1080	System 27-1680-..10/.... for one heating circuit for 2/3 heating circuits	27-5452-52111230 27-5452-54311230
<b>High quality Stainless Steel 07-56B1</b> IBExU 99 ATEX 1118U IBExU 99 ATEX 1096	System 27-1680-..10/.... for one heating circuit for 2/3 heating circuits	27-5452-67111230 27-5452-68311230

## 6 Accessories, spare parts

Supplement and spare parts, refer to BARTEC catalog

## 7 Service address

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Max-Eyth-Strasse 16  
97980 Bad Mergentheim  
Tel. +49 (0) 7931 597 0  
Fax +49 (0) 7931 597 494  
E-mail: info@bartec.de

## Distribution box 27-5452-.....

Erklärung der EG-Konformität  
Declaration of EC-Conformity  
Attestation de conformité CE

**BARTEC VARNOST**  
BARTEC VARNOST d.o.o.  
Cesta 9. avgusta  
SI-1410 Zagorje ob Savi

Wir	We	Nous
<b>BARTEC Varnost d.o.o.</b>		
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
Polyester-Leergehäuse	Polyester Empty Enclosure	Coffrets Polyester
<b>Typ: 07-5184-.....</b> <b>Typ: 07-5185-.....</b>		
auf das sich diese Erklärung bezieht den Bestimmungen der folgenden Richtlinien entspricht	to which this declaration relates is in accordance with the provision of the following directives	se référant à cette attestation correspond aux dispositions des directives suivantes
94/10/EG	94/10/EC	94/10/CE
und mit folgenden Normen oder normativen Dokumenten übereinstimmt	and is in conformity with the following standards or other normative documents	et est conforme aux normes ou documents normatifs ci-dessous
<b>EN 60079-0:2006</b> <b>EN 60079-7:2003</b> <b>EN 60439-1</b> <b>EN 60947-7-1</b>		
<b>Kennzeichnung</b> 0102	<b>Marking</b>	<b>Marquage</b>
 II 2G Ex e II PTB 08 ATEX 1062 U		
Zagorje, den 29.09.2008		
 Janez Gajski Technische Leiter		

VB-02 02 09AVS42 CE 03A\_3194501\_CK028 8 106

Erklärung der EG-Konformität  
Declaration of EC-Conformity  
Attestation de conformité CE



**BARTEC VARNOST**  
BARTEC Varnost d.o.o.  
Cesta 9. avgusta 89  
SI-1410 Zagorje ob Savi

Wir	We	Nous
<b>BARTEC Varnost d.o.o.</b>		
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
Aluminium Leergehäuse	Aluminium Empty Enclosure	Coffrets Aluminium
<b>Typ : 07-5180-.....</b>		
auf das sich diese Erklärung bezieht den Bestimmungen der folgenden Richtlinien entspricht	to which this declaration relates is in accordance with the provision of the following directives	se référant à cette attestation correspond aux dispositions des directives suivantes
94/10/EG	94/10/EC	94/10/CE
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<b>EN 60079-0:2006</b> <b>EN 60079-7:2003</b> <b>EN 60439-1</b> <b>EN 60947-7-1</b>		
<b>Kennzeichnung</b> 0102	<b>Marking</b>	<b>Marquage</b>
 II 2G Ex e II PTB 08 ATEX 1063U		
Zagorje, den 29.09.2008		
 Janez Gajski Technische Leiter		

VB-02 02 0303\_CK Konformitätsklärung 07-5180

Erklärung der EG-Konformität  
Declaration of EC-Conformity  
Attestation de conformité CE

**BARTEC VARNOST**  
BARTEC VARNOST d.o.o.  
Cesta 9. avgusta  
SI-1410 Zagorje ob Savi

Wir	We	Nous
<b>BARTEC Varnost d.o.o.</b>		
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
Edelstahl Leergehäuse	Stainless Steel Empty Enclosure	Coffrets Inox
<b>Typ: 07-56.1-.....</b>		
auf das sich diese Erklärung bezieht den Bestimmungen der folgenden Richtlinien entspricht	to which this declaration relates is in accordance with the provision of the following directives	se référant à cette attestation correspond aux dispositions des directives suivantes
94/10/EG	94/10/EC	94/10/CE
und mit folgenden Normen oder normativen Dokumenten übereinstimmt	and is in conformity with the following standards or other normative documents	et est conforme aux normes ou documents normatifs ci-dessous
<b>EN 60079-0:2006</b> <b>EN 60079-7:2003</b> <b>EN 60439-1</b> <b>EN 60947-7-1</b>		
<b>Kennzeichnung</b> 0102	<b>Marking</b>	<b>Marquage</b>
 II 2G Ex e II IBExU99ATEX1118 U		
Zagorje, den 30.06.2008		
 Janez Gajski Technische Leiter		

VB-02 02 032\_CK Konformitätsklärung-Edelstahl-Leergehäuse