

Distribution box

Operation manual

Distribution box 27-5452-.....

Type 27-5452-.....

1. Product description

The 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 ensures 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 60079-31 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, MSB and HSB.

2. Technical data

Material	Glass-fibre reinforced polyester Type 27-5452 black RAL 9005 RO < 10 ⁹ Ω Aluminium grey RAL 7001 AlSi 12, Mg < 7.5 % Stainless steel, brushed 1.4301, AISi304
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 254 V
Rated current	max. 32 A
Ambient temperature range	-55 °C ≤ Ta ≤ +55 °C (T5) and Ex ia/ib IIC T6 -55 °C ≤ Ta ≤ +40 °C (T6) -55 °C ≤ Ta ≤ +40 °C (T80 °C) and by II 2D -55 °C ≤ Ta ≤ +55 °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, MSB 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, MSB or HSB the equipment require at least the protection class IP 65.

3. Safety instructions

With electrical equipment, the installation and operating regulations are to be adhered (e.g. RL1999/92/EG, RL2014/34/EU, IEC/EN 60079-14 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 60079-0.

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 Ro > 10⁹ Ω may be cleaned only with a wet cloth.

4. Assembly, operation, maintenance and repair

Assembly/disassembly

For assembly and operation of explosion-proof electrical equipment, relevant installation and operating regulations are to adhere (e.g. IEC/EN60079-14 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.

Maintenance and repair

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



(DO NOT OPEN WHEN ENERGIZED!)

Only wet cleaning with grey distribution box.

When used for BARTEC trace heating system

PSBL	27-1580-*	KEMA 08 ATEX 0112X
PSB	27-1680-*	KEMA 08 ATEX 0111X
MSB	27-1980-*	KEMA 08 ATEX 0110X
HSB	27-1780-*	KEMA 08 ATEX 0110X

the corresponding operation manuals must be observed.

Ordering information

Designation	System 27-1680-..10/....	Order no.
Polyester 07-5185		
PTB 08 ATEX 1062U	for one heating circuit	27-5452-42111210
IBExU 00 ATEX1081	for 2/3 heating circuits	27-5452-44311210
Aluminium 07-5180		
PTB 08 ATEX 1063U	for one heating circuit	27-5452-52111230
IBExU 00 ATEX 1080	for 2/3 heating circuits	27-5452-54311230
High quality stainless steel 07-56B1		
IBExU 99 ATEX 1118U	for one heating circuit	27-5452-67111230
IBExU 99 ATEX 1096	for 2/3 heating circuits	27-5452-68311230


5. Accessories and equipment

Accessories and equipment see BARTEC catalogue.

6. Service address

BARTEC GmbH
 Max-Eyth-Str. 16
 97980 Bad Mergentheim
 Germany
 Phone: +49 7931 597 0
 Fax: +49 7931 597 119
 info@bartec.de
 www.bartec.de

N^o VS-02 02 095E

Wir	We	Nous
BARTEC Varnost d.o.o.,		
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
Gehäuse und Schränke (Leergehäuse) aus Metal mit Flansch	Enclosures and Cubicles (Empty enclosures) made of metal with flange	Coffrets en métal avec bride
Typ: 07-56.1-****/****		
auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht	to which this declaration relates is in accordance with the provision of the following directives (D)	se référant à cette attestation correspond aux dispositions des directives (D) suivantes
ATEX-Richtlinie 2014/34/EU (gültig ab 20. April 2016)	ATEX-Directive 2014/34/EU (valid from April 20th, 2016)	ATEX-Directive 2014/34/UE (valide à partir du 20. Avril 2016)
RoHS-Richtlinie 2011/65/EU	RoHS-Directive 2011/65/EU	RoHS-Directive 2011/65/UE
Maschinen-Richtlinie 2006/42/EG	Machinery Directive 2006/42/EC	Directive Européenne de l'Equipment 2006/42/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
EN 60079-0:2012 EN 60079-7:2007	EN 60079-31:2009	EN 60529:1991 +A1:2000+ A2:2013
Kennzeichnung	Marking	Marquage
	II 2G Ex e IIC Gb II 2D Ex tb IIIC Db IP66	
Verfahren der EU-Baumusterprüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié
IBExU 99 ATEX 1118 U 0637 IBExU, Fuchsmühlenweg 7, 09599 Freiberg, D		
⁽¹⁾ Die Ex-Komponente ist Teil eines elektrischen Betriebsmittels oder eines Moduls, das mit dem Symbol „U“ gekennzeichnet ist, das nicht für sich allein verwendet werden darf und über dessen Einbau in elektrische Betriebsmittel oder Systeme zur Verwendung in explosionsgefährdeten Bereichen gesondert entschieden werden muss.	⁽¹⁾ The Ex-component is a part of an electrical apparatus or a module, marked with the symbol „U“, which is not intended to be used alone and requires additional consideration when incorporated into electrical apparatus or systems for use in explosive atmospheres.	⁽¹⁾ Le composant Ex est partie de matériel électrique ou de module, marquée du symbole „U“, ne devant pas être utilisée seule et nécessitant une certification complémentaire lorsqu'elle est incorporée à un matériel électrique ou à un système pour atmosphères explosives.

EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

BARTEC VARNOST

BARTEC Varnost d.o.o.
Cesta 9. Avgusta 59
1410 Zagorje ob Savi
Slovenia

Nº VS-02 02 095E

Merkmale dieser Komponenten
sowie die Bedingungen für ihren
Einbau in Geräte und Schutzsys-
teme siehe Betriebsanleitung der
Komponente.

Characteristics and how the com-
ponent must be incorporated into
equipment or protective systems
see operation manual of the com-
ponent.


Les caractéristiques du composant
ainsi que les conditions
d'incorporation dans des appareils
ou des systèmes de protection
regarde voir l'instruction d'emploi
du composant.

1304

Zagorje, den 19.04.2016

Janez Gajski
Technical Manager

Nº VS-02 02 0961

Wir	We	Nous
BARTEC Varnost d.o.o.,		
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 housing	Coffrets Polyester
Typ: 07-5184-****/****, 07-5185-****/****		
auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht	to which this declaration relates is in accordance with the provision of the following directives (D)	se référant à cette attestation correspond aux dispositions des directives (D) suivantes
ATEX-Richtlinie 2014/34/EU	ATEX-Directive 2014/34/EU	ATEX-Directive 2014/34/UE
RoHS-Richtlinie 2015/863/EU	RoHS-Directive 2015/663/EU	RoHS-Directive 2015/863/UE
Maschinen-Richtlinie 2006/42/EG	Machinery Directive 2006/42/EC	Directive Européenne de l'Equipment 2006/42/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
EN 60079-0:2012+A11 :2013 EN 60079-7:2015	EN 60079-31:2014	EN 60529:1991 +A1:2000+ A2:2013
Kennzeichnung	Marking	Marquage
 II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db IP66		
Verfahren der EU-Baumusterprüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié
PTB 08 ATEX 1062 U 0102 PTB, Bundesallee 100, 38116 Braunschweig, D		
(*) Die Ex-Komponente ist Teil eines elektrischen Betriebsmittels oder eines Moduls, das mit dem Symbol „U“ gekennzeichnet ist, das nicht für sich allein verwendet werden darf und über dessen Einbau in elektrische Betriebsmittel oder Systeme zur Verwendung in explosionsgefährdeten Bereichen gesondert entschieden werden muss.	(*) The Ex-component is a part of an electrical apparatus or a module, marked with the symbol „U“, which is not intended to be used alone and requires additional consideration when incorporated into electrical apparatus or systems for use in explosive atmospheres.	(*) Le composant Ex est partie de matériel électrique ou de module, marquée du symbole „U“, ne devant pas être utilisée seule et nécessitant une certification complémentaire lorsqu'elle est incorporée a un matériel électrique ou à un système pour atmosphères explosives.

Merkmale dieser Komponenten
sowie die Bedingungen für ihren
Einbau in Geräte und Schutzsys-
teme siehe Betriebsanleitung der
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Zagorje, 01.09.2018

Janez Gajski
Technical Manager

Nº VS-02 02 097G

Wir	We	Nous
BARTEC Varnost d.o.o.,		
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 housing	Coffrets Aluminium
Typ: 07-5180-****/****		
auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht	to which this declaration relates is in accordance with the provision of the following directives (D)	se référant à cette attestation correspond aux dispositions des directives (D) suivantes
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PTB 08 ATEX 1063 U 0102 PTB, Bundesallee 100, 38116 Braunschweig, D		
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regarde voir l'instruction d'emploi
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Zagorje, 01.09.2018

Janez Gajski
Technical Manager

Reservation

Technical data subject to change without notice.

No claims for damages arising from alternations, errors or missprints shall be allowed.