ESP Enclosure

Ex e GRP enclosure for zone 1, 2, 21, 22

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The enclosures are conform to the relevant standards EN / IEC 60079-0 and EN / IEC 60079-7 and were developed, produced and tested in accordance with relevant requirements. Enclosures types 07-5184 and 07-5185 can be used in hazardous areas of zone 1 and 2. The enclosures type 07-5185 can also be used in zone 21 and 22. Inspection window can be installed in the enclosure lids, if required.

Explosion protection

ATEX	Ex type of protection Ex II 2G Ex eb IIC Gb Ex II 2D Ex tb IIIC Db only for type 07-5185
Certification	IBExU 21 ATEX 1009U
IECEx	Ex type of protection Ex eb IIC Gb Ex tb IIIC Db - only for type 07-5185
Certification	IECEx IBE 20.0041U
Rated service temperature range	from -35 °C to +90 – with EPDM gasket from -55 °C to +100 – with silicone gasket
Approved for zones	1 and 2 21 and 22 - only for type 07-5185

Technical data

Protection class (acc. EN / IEC 60529)	Max. IP 66 if silicone gasket is used Max. IP 66 if EPDM gasket is used
Enclosure material/ manufacturing process	Type 07-5185 glass-fiber reinforced polyester, surface resistance $<10^9\Omega$, RAL 9005 black Type 07-5184 glass-fiber reinforced polyester, surface resistance $>10^{12}\Omega$, RAL 9000/RAL 7001 grey
Lid screws	Stainless Steel, cross-head (+-)
Recommended tightening torque	M4 screw: ca. 1.2 Nm M6 screw: ca. 1.4 Nm
Mechanical strength	Impact energy 7 Joule
Dimensions	See BARTEC Catalogue

Note on instructions

When working in hazardous areas, the safety of personnel and equipment depends on compliance with the relevant safety regulations. The people in charge of installation and maintenance bear a special responsibility. It is essential that they have an exact knowledge of the applicable rules and regulations.

The instructions provide a summary of the most important safety measures and must be read by everyone working with the product so that they will be familiar with the correct handling of the product.

The instructions have to be kept for future reference and must be available throughout the expected life of the product.

Description

The Ex empty enclosure types 07-5184-..../.... and 07-5185-..../.... may be used for fitting electrical and mechanical components. The enclosure consists of fibre glass-reinforced polyester (07-5184 grey or 07-5185, black). Lid and base are screwed together with stainless steel captive screws (+/- screw head). A groove-and-tongue system with inserted sealing cord between the lid and base assures the high protection class IP 65/66 (according EN / IEC 60529). The enclosure is mounted through the screw channels lying outside the sealing space.

Cable glands/maximum number

Size	Wall	M12 x 1.5	M16 x 1.5	M20 x 1.5	M25 x 1.5	M32 x 1.5	M40 x 1.5	M50 x 1.5	M63 x 1.5
80 x 75 x 55/75	A/B C/D	4 1	2 1	2 –	1 –	– –	– –	– –	– –
110 x 75 x 55/75	A/B C/D	6 1	4 1	3 –	2 –	– –	– –	– –	– –
160 x 75 x 55/75	A/B C/D	12 1	6 1	4 –	3 –	– –	– –	– –	– –
190 x 75 x 55/75	A/B C/D	15 1	8 1	5 –	4 –	– –	– –	– –	– –
230 x 75 x 55/75	A/B C/D	28 1	18 1	11 –	5 –	3 –	3 –	2 –	– –
122 x 120 x 90/120	A/B C/D	13 4	9 4	5 2	3 1	2 1	1 1	1 –	– –
220 x 120 x 90	A/B C/D	28 4	18 4	11 2	5 1	3 1	3 1	2 –	– –
160 x 160 x 90	A/B C/D	18 8	14 8	8 4	4 2	2 2	2 1	1 –	– –
160 x 160 x 120	A/B C/D	18 8	14 8	8 4	4 2	2 2	1 1	1 –	– –
260 x 160 x 90	A/B C/D	33 8	26 8	14 4	7 2	4 2	3 1	3 –	– –
360 x 160 x 90	A/B C/D	48 8	38 8	20 4	10 2	6 2	5 1	4 –	– –
560 x 160 x 90	A/B C/D	130 8	84 8	52 4	24 2	18 2	10 1	6 –	4 –
200 x 250 x 120	A/B C/D	24 12	16 12	9 8	4 4	3 3	2 2	2 2	– 2
255 x 250 x 120/160	A/B C/D	53 12	34 12	20 8	9 4	7 3	4 2	3 2	2 2
400 x 250 x 120/160	A/B C/D	88 12	58 12	35 8	17 4	13 3	6 2	5 2	4 2
400 x 405 x 120	A/B C/D	88 26	58 20	35 14	17 6	13 4	6 2	5 4	4 3
400 x 405 x 165	A/B C/D	135 42	89 38	53 30	26 8	20 5	9 3	7 6	4 4
600 x 250 x 120	A/B C/D	130 12	84 12	52 8	24 4	18 3	10 2	6 2	4 2

For intermediate sizes please refer to the next smaller size.
The width of the separately certified cable glands must be considered.

Safety instructions

The supplied Ex empty enclosures are U-certified components which serve as a basis for completely certified devices which then in their entirety must still be tested and approved by a specified agency for capability for use in potentially explosive areas.

All universally valid rules and the other binding directives relating to workplace safety, accident prevention and environmental protection must be adhered to.

Marking

Particularly important points in these instructions are marked with a symbol:

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in deat or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may reult in death or serious injury.

NOTICE indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE Important instructions and information on effective, economical and environmentally compatible handling.

Standards conformed to

Please see Attestation of Conformity and IECEx certificate.

Schedule of limitations:

- For enclosures and parts of enclosures type 07-5184-****/**** (grey enclosures made of insulating material) exist potential electrostatic charging hazard. These enclosures shall not be installed in areas where charging processes may occur. The surface has to be cleaned only with a damp cloth. Further, the enclosures have to be equipped with following marking: Warning - potential electrostatic charging hazard. Only wet cleaning. See instructions.
- Enclosures and parts of enclosures type 07-5185-****/**** (black enclosures made of dissipative material} must be properly earthed via installation.
- The service temperature range must be observed and shall not exceed the listed values depending on the material of the gasket.
- Cable entries and closing plugs must be Ex certified and contain a suitable sealing gasket in order to ensure IP64.

Assembly, installation, and commissioning

WARNING

Risk of serious injury due to incorrect proceedings.

- Only authorized and qualified personnel may do any of the assembly, disassembly, installation and commissioning work.
- Pay attention to the type of mounting required (for fitting into enclosure /attachment with junction box).
- Use suitable tools.
- For assembly and operation of explosion-protected electrical equipment, relevant installation and operating regulations are to adhered (z.B.Betr.SichV, IEC/EN 60079-14 and series DIN VDE 0100).
- The data on the label and the EEC design test data are to be observed. Further technical information of the Ex–distribution boxes are provided in the Bartec catalog and on the product itself.
- For accommodating use only components certified for the Ex areas such as terminals, switches, cable glands, meas-uring instruments, control equipment and display units.
- When processing the enclosures, attention must be paid to ensuring that there is suitable minimum spacing between individual boreholes and from the sealing edge of the enclosure so that the enclo-sure with the fittings will be able to withstand an impact test.
- The minimum spacing depends on the geometrical dimensions of the built-in components, a longer lever will require an increase in the minimum spacing and accordingly must be determined specifically.

Installation

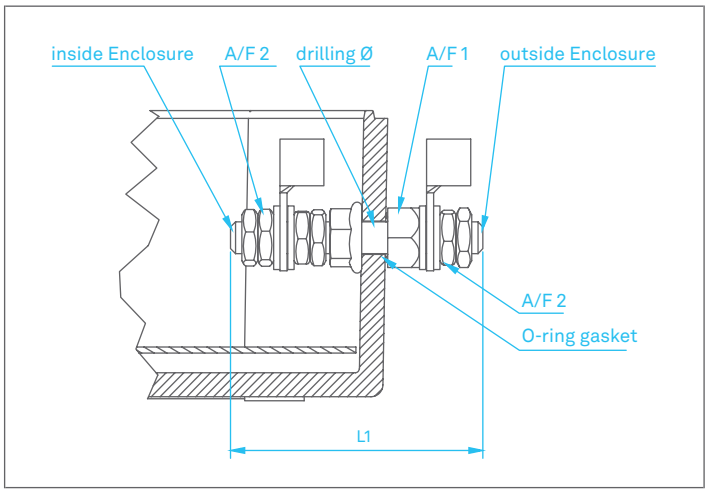
CAUTION

- For enclosures placed in outdoors, steps must be taken to ensure smooth operation, for example rain protected roofs, and if necessary, sufficient enclosure protection.
- Installations for the highly combustible range must exhibit an EEC design inspection certificate. Installation of these components must take place in such way, so that at least the enclosure remains IP54
- Connection of cables and conductors to equipment in hazardous areas require Ex-certified entries, which are suitable for respective cable and conductor types. They must possess the protection type “e” and contain a suit-able sealing gasket, so that the protection class of the enclosure remains at least IP54.
- Metalic conductor entries must be connected to the ground. Unused holes for cable entries must been sealed with certified plugs.

Size

Material	Selection	Ø 1	L1	A/F 1	A/F 2	torque	drilling Ø
480972	05-0012-0253	M6	89,5 mm	15	10	15 Nm	6.4 mm
480973	05-0012-0254	M8	76 mm	15	13	25 Nm	8.4 mm
480974	05-0012-0255	M10	63,5 mm	17	15	30 Nm	10.5 mm
480975	05-0012-0256	M12	54,5 mm	19	18	50 Nm	12.5 mm

Earth Stud Quick Guide



1. Place the O-ring cleanly into the recess.
2. Tightening: Screw the lock washer nut onto the block and apply the specified torque from the outside, depending on thread size.
3. Locknuts (each inside and outside the housing):
   a. Secure the inner nut
   b. Then attach the earth tag
   c. Secure the outer nut

Commissioning

CAUTION

Before commissioning, check that:

- The device has been installed in compliance with regulations.
- The device is not damaged

Operation, maintenance and repair

For maintenance and/or repair the provided safety regulations are to be adhered.

CAUTION

Maintenance and repair work may be accomplished only by the technical experts.

- Check distribution box, actuating elements, cable entries, sealing, and cables regularly for cracks and damage. Make sure that they are properly established.

! Risk of serious injury due to use of non-original parts

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

! Risk of serious accidents due to damaged parts.

- 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.

! Dust deposits > 5 mm must be removed

WARNING

only for type 07-5184 and for enclosures with windows with surface resistance of >10^9Ω potential electrostatic charging hazard exist. The enclosure must therefore carry the following warning:

POTENTIAL ELECTROSTATIC CHARGING HAZARD – ONLY WET CLEANING

Transport, Storage and Disposal

NOTICE

Damage through incorrect transport or incorrect storage.

- Transport and storage is permissible in original packaging only.
- Store in a dry place in original packaging.

NOTE

Disposal

Ensure environmentally friendly disposal of all components according to legal regulations.
The enclosures contain metal and plastic parts. Therefore the statutory requirements for disposing of scrap must be observed (e.g. disposal by approved disposal company)

Installation dimensions

NOTICE

Damage to elements due to incorrect installation dimensions.

- The minimum spacing between the mounting holes must be observed.

Dimensions in mm

From 80 x 75 x 55 to 600 x 250 x 120

Accessories, spare parts

See BARTEC website www.bartec.com

Service Address

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bartec.com

BARTEC FEAM NASP	**Attestato UE di conformità** ***EU Attestation of conformity***	**DC-0202096K** revisione **01** del **01/12/2025** pagina **1** di **1**

La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante:

This declaration of conformity is issued under the sole responsibility of the manufacturer:

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http://www.bartec-fn e-mail: info@bartec-fn.com

MODELLO: Custodie in poliestere
Tipo: 07-5184-**/**** e 07-5185-****/****

MODEL: Polyester enclosures
Type: 07-5184-**/**** and 07-5185-****/****

0722 ⟨Ex⟩ II 2 G Ex eb IIC Gb
II 2 D Ex tb IIIC Db

IBExU 21 ATEX 1009 U

issued by Notified Body no. 0637
IBExU – Fuchsmühlenweg 7, 09599 Freiberg, Germany

La fabbricazione è coperta dalla *notifica della garanzia di qualità della produzione* (modulo D - allegato IV):
CESI 09 ATEX 055Q
Emesso dall'Organismo Notificato no. 0722; CESI S.p.A.

Soddisfa i requisiti definiti dalle seguenti Direttive:
Direttiva 2014/34/UE ATEX

Il soddisfacimento dei sopracitati Requisiti (RESS) è stato assicurato applicando le seguenti norme:

- EN IEC 60079-0 : 2018 "Atmosfere esplosive - Parte 0: Apparecchiature - Prescrizioni generali"
- EN IEC 60079-7 : 2015+A1:2018 "Atmosfere esplosive - Parte 7: Apparecchiature con modo di protezione a sicurezza aumentata ‹e›"
- EN 60079-31 : 2014 "Atmosfere esplosive - Parte 31: Apparecchi con modo di protezione mediante custodie ‹t› destinati ad essere utilizzati in presenza di polveri combustibili.

The production is covered by the production quality assurance notification (module D - annex IV):
CESI 09 ATEX 055Q
Issued by Notified Body no. 0722; CESI S.p.A.

It is in conformity with the following Directives:
Directive 2014/34/EU ATEX

The satisfaction of above-mentioned Requirements (EHSR) has been assured applying the following Standards:

- EN IEC 60079-0 : 2018 "Explosive atmospheres - Part 0: Equipment - General requirements".
- EN IEC 60079-7 : 2015+A1:2018 "Explosive atmospheres – Part 7: Equipment protection by increased safety ‹e›"
- EN 60079-31 : 2014 "Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure ‹t›".

Trezzano Sul Naviglio, 01 Dicembre 2025

BARTEC F.N. Srl
Legale rappresentante
Dario Colaut

Trezzano Sul Naviglio, 2025 December 01st

BARTEC F.N. Srl
Legal representative
Dario Colaut

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