

[1] **EC-TYPE EXAMINATION CERTIFICATE**

according to Directive 94/9/EC, Annex III



(Translation)

[2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU10ATEX1158 U**

[4] Component: **Empty enclosure**
Type MBA...Ex

[5] Manufacturer: MULTI-BOX GmbH

[6] Address: Wallücker Bahndamm 7
32278 Kirchlengern
Germany

[7] The design of the component mentioned in [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the in [4] mentioned component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-10-3-248 of 30 May 2011.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2009, EN 60079-7:2007 and EN 60079-31:2009.

[10] The sign „U“ placed after the Certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used only as a basis for the certificate of an equipment or protective system.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified component. If applicable, further requirements of this directive apply to the manufacture and supply of this component.

[12] The marking of the component mentioned in [4] shall include one of the following:

II 2G Ex e IIC Gb

II 2D Ex tb IIIC Db

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0) 3731 3805.0 - 📠 +49 (0) 3731 23650

Authorised for certifications
-Explosion protection-

By order

(Dr. Wagner)



- Seal -
(ID no. 0637)

Freiberg, 30 May 2011

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU10ATEX1158 U**

[15] **Description of component**

The Empty enclosures type MBA...Ex are produced from aluminium and can be used stationary in the zones 1 and 2 as well as 21 and 22. The enclosures can be provided with approved Ex components according to ATEX, such as plug-in connectors, modular terminal blocks, connecting terminals and switches, in any combination.

Types

Type MBA...Ex empty enclosure

Type of protection:

II 2G Ex e IIC Gb and II 2D Ex tb IIIC Db

<u>Size</u>	<u>length</u>	<u>width</u>	<u>depth</u>
606030	58 mm	64 mm	34 mm
906030	98 mm	64 mm	35 mm
156030	150 mm	64 mm	35 mm
708055	75 mm	80 mm	53 mm
128055	125 mm	80 mm	57 mm
178055	175 mm	80 mm	57 mm
258055	250 mm	80 mm	53 mm
121265	122 mm	120 mm	66 mm
121280	122 mm	120 mm	81 mm
121290	122 mm	120 mm	91 mm
221265	220 mm	120 mm	66 mm
221280	220 mm	120 mm	81 mm
221290	220 mm	120 mm	91 mm
361280	360 mm	121 mm	82 mm
161690	160 mm	160 mm	91 mm
261665	260 mm	160 mm	67 mm
261690	260 mm	160 mm	92 mm
361690	360 mm	160 mm	91 mm
561690	560 mm	160 mm	91 mm
202311	202 mm	232 mm	111 mm
282311	280 mm	232 mm	111 mm
332311	330 mm	230 mm	111 mm
332318	331 mm	230 mm	180 mm
402311	400 mm	233 mm	111 mm
403111	404 mm	313 mm	111 mm
602311	600 mm	230 mm	111 mm
603111	600 mm	310 mm	111 mm
403118	402 mm	312 mm	180 mm
603118	600 mm	310 mm	181 mm

Technical Data:

Operation temperature range:

-55 °C to +135 °C

Degree of protection:

IP 66

[16] **Test report**

The proof of explosion protection is recorded in detail in the test report IB-10-3-248. The test documents are part of the test report and are listed there.

Summary of the test results:

The Empty enclosures type MBA...Ex fulfil the requirements of explosion protection for equipment group II and category 2G, type of protection Increased Safety and category 2D with Protection by Enclosures.

Safety instructions

- The conditions specified in the EC-Type Examination Certificates of the Ex components have to be taken into account at the installation in the empty enclosures.
- The degree of protection, at least IP 64, at the installation and operation is reached only at the proper use of cable glands which are tested and confirmed on explosion protection.

[17] **Special conditions for safe use**

none

[18] **Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 30 May 2011



(Dr. Wagner)

[1] **EC-TYPE EXAMINATION CERTIFICATE**

according to Directive 94/9/EC, Annex III

(Translation)



[2] Equipment and Protective System intended for use
in Potentially Explosive Atmospheres, Directive 94/9/EC

[3] EC-Type Examination Certificate Number: **IBExU10ATEX1159**

[4] Equipment: **Connection box**
Type MBA...Ex e and MBA...Ex i

[5] Manufacturer: **MULTI-BOX GmbH**

[6] Address: **Wallücker Bahndamm 7**
32278 Kirchlengern
Germany

[7] The design of the equipment mentioned in [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the equipment mentioned in [4] has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-10-3-248 of 30 May 2011.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2009, EN 60079-7:2007, EN 60079-11:2007 and EN 60079-31:2009.

[10] If the sign „X“ is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include one of the following:

Type MBA...Ex e II 2G Ex e IIC T6...T4 Gb, II 2D Ex tb IIIC T 85 °C Db

Type MBA...Ex i II 2G Ex ia IIC T6...T4 Gb
-55 °C/-20 °C ≤ T_a ≤ +40 °C/+85 °C

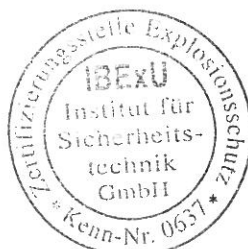
IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0)3731 3805-0 - 📠 +49 (0)3731 23650

Authorised for certifications
-Explosion protection-

By order

(Dr. Wagner)

Schedule



- Seal-
(ID no. 0637)

Freiberg, 30 May 2011

Certificates without signature
and seal are not valid.
Certificates may only be
duplicated completely and
unchanged. In case of dis-
pute, the German text shall
prevail

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU10ATEX1159**

[15] **Description of equipment**

The Connection boxes types MBA...Ex e and MBA...Ex i are produced from aluminium and can be used stationary in the zones 1 and 2 as well as 21 and 22. The enclosures serve for the connection and distribution of cables and conductors by means of installed terminal blocks.

Types

Type MBA...Ex-e a, tb

Type of protection:

II 2G Ex e IIC Gb T6...T4 and II 2D Ex tb IIIC T 85 °C Db

Type MBA...Ex-i

Type of protection:

II 2G Ex ia IIC Gb T6...T4

Size	length	width	depth
606030	58 mm	64 mm	34 mm
906030	98 mm	64 mm	35 mm
156030	150 mm	64 mm	35 mm
708055	75 mm	80 mm	53 mm
128055	125 mm	80 mm	57 mm
178055	175 mm	80 mm	57 mm
258055	250 mm	80 mm	53 mm
121265	122 mm	120 mm	66 mm
121280	122 mm	120 mm	81 mm
121290	122 mm	120 mm	91 mm
221265	220 mm	120 mm	66 mm
221280	220 mm	120 mm	81 mm
221290	220 mm	120 mm	91 mm
361280	360 mm	121 mm	82 mm
161690	160 mm	160 mm	91 mm
261665	260 mm	160 mm	67 mm
261690	260 mm	160 mm	92 mm
361690	360 mm	160 mm	91 mm
561690	560 mm	160 mm	91 mm
202311	202 mm	232 mm	111 mm
282311	280 mm	232 mm	111 mm
332311	330 mm	230 mm	111 mm
332318	331 mm	230 mm	180 mm
402311	400 mm	233 mm	111 mm
403111	404 mm	313 mm	111 mm
602311	600 mm	230 mm	111 mm
603111	600 mm	310 mm	111 mm
403118	402 mm	312 mm	180 mm
603118	600 mm	310 mm	181 mm

Technical data:

Ambient temperature range:

-55 °C/-20 °C to +40 °C (T6 or T85 °C)
to + 85 °C (T4 or T135 °C)

Degree of protection:

IP 66

Rated voltage:

according to clamping type to 1500 V
intrinsaley safe circuits 60 V

Rated current:

according to the equipping tables
max. 400 A

Connection cross-section:

max. 240 mm²

Protective ground cross-section:

to 120 mm²

[16] Test report

The proof of explosion protection is recorded in detail in the test report IB-10-3-248. The test documents are part of the test report and are listed there.

Summary of the test results:

The Connection boxes types MBA...Ex e and MBA...Ex i fulfil the requirements of explosion protection for equipment group II and category 2G, type of protection Increased Safety and Category 2D with Protection by enclosures and Intrinsic safety.

Safety technical notes

- The conditions specified in the EC-Type Examination Certificates of the Ex components have to be taken into account for the installation of these components in the enclosure.
- The degree of protection, at least IP 64, at the installation and operation is reached only at the proper use of cable glands which are tested and confirmed on explosion protection.
- The values are maximum values, the actual electrical values are determined by the built-in components. The manufacturer fixes the definite rated values in the context of these limiting values. So the manufacturer ensures the compliances with the maximum surface temperature and the permissible operating temperature of the components.

[17] Special conditions for safe use

none

[18] Essential Health and Safety Requirements

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 30 May 2011



(Dr. Wagner)