

Braunschweig and Berlin

<German federal coat of arms>

EC Type Examination Certificate

- 1)
- 2) Devices and protective systems for intended usage
in potentially explosive areas – **Directive 94/9/EC**
- 3) EC type examination certificate number
PTB 03 ATEX 1026
- 4) Device: Mini control, regulation and display device Type 07-61.1-.../...
and Type 07-662.-.../...
- 5) Manufacturer: BARTEC GmbH
- 6) Address: 97980 Bad Mergentheim, Germany
- 7) The construction of this device as well as its various permissible designs are specified in the annex of this type examination certificate and in the documents referred to within the annex.
- 8) The Physical-Technical German Federal Authority (*Physikalisch-Technische Bundesanstalt*), herewith, in its function as appointed center No. 0102, in accordance with Section 9 of the Directive issued by the Council of the European Communities on March 23, 1994 (94/9/EC), certifies the devices' and protective system's compliance with the basic safety and health requirements for the conception and the construction of devices and protective systems for intended usage in potentially explosive areas in accordance with Annex II of the Directive.

The examination results are documented in the confidential examination report No. PTB Ex 04-12355.
- 9) The basic safety and health requirements are fulfilled by compliance with:

EN 50014:1997 + A1 + A2	EN 50018:2000
EN 50019:2000	EN 50281-1-1:1998 + A1
- 10) If the certification number is followed by the symbol "X", the device is subjected to special requirements for safe application in accordance with the annex of this certificate.
- 11) This EC type examination certificate is only valid for the conception and examination of the specified device in accordance with Directive 94/9/EC. Further requirements stipulated by this directive apply to the manufacture and sale of this device. Such requirements are not covered by this certificate.
- 12) The identification of the device must contain the following data:
Ex II 2 G/D EEx de IIC T6 or T5 IP 66 T 80°C or T 95 °C

Certification department for explosion protection
By order

Braunschweig, March 29, 2004

<Signature>

Dipl.-Phys. U. Völker
(Graduate physicist)

(*Physikalisch-Technische Bundesanstalt*)>

<Circular stamp: Physical-Technical German Federal Authority

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13)

Annex

14)

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15) Description of the device

The mini control, regulation and display device Type 07-61.1-.../... serves as a pressurized enclosure for switching, control, regulation and display devices of industrial quality. It consists of the pressurized enclosure with optional axes, shafts and/or viewing window.

The mini control, regulation and display device Type 07-662-.../... serves as a pressurized enclosure for variable resistors of industrial quality. It consists of the pressurized enclosure with operating axis.

Connection is realized via a terminal box of “increased safety” type of protection or via an integrated connection cable (cable tree).

The mini control, regulation and display devices without axes and shafts is suitable for application in hazardous dust zones.

Electrical data

Rated insulation voltage.....	up to	690 V
Rated current.....	max.	21 A
Power loss for	T6	T5
Type 07-6111, min. length 55 mm	2.5 W	3 W
Type 07-6121, min. length 55 mm	2.5 W	3 W
Type 07-6121, min. length 90 mm	5 W	6 W
Type 07-6131, min. length 60 mm	5 W	6 W
Type 07-6131, min. length 90 mm	7 W	8 W
Type 07-6622, min. length 55 mm	2.5 W	
Type 07-6623, min. length 55 mm		3 W
Type 07-6624, min. length 55 mm	5 W	
Type 07-6625, min. length 55 mm		6 W
Type 07-6626, min. length 55 mm	7 W	
Type 07-6627, min. length 55 mm		8 W
referred to an ambient temperature of 40 °C		
Connection cross section	max.	2.5 mm ²

With a reduced power loss, an ambient temperature of over 40 °C is permissible.

The rated values represent maximum values, the actual electrical values are dependent on the installed electrical operating equipment. Within the scope of these limit values, the manufacturer stipulates the final rated values in accordance with the applicable standard and in dependence of the network conditions, the operating mode, the utilization category, etc. Further technical details are specified in the examination documents.

The composition of the safety type of protection identification is based on the safety types of protection of the respectively used components.

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Annex of the EC Type Examination Certificate PTB 03 ATEX 1026

16) Examination report PTB Ex 04-12355

17) Special requirements

None

Notes on manufacture and operation

The connection cable (cable tree) of the mini control, regulation and display device must be firmly routed and installed in a way which ensures that the cable sufficiently meets the thermal and mechanical strain.

When connected in potentially explosive areas, the connection cable (cable tree) of the mini control, regulation and display device must be connected in an enclosure which meets the requirements of an approved safety type of protection in accordance with EN 50014, Section 1.2.

The control, regulation and display device may also be connected via respectively suitable cable entries or pipework systems which meet the requirements of EN 50018, Sections 13.1 and 13.2 and for which a separate examination certificate has been obtained.

Unassigned openings must be locked in accordance with EN 50018, Section 11.

Cable and line entries as well as sealing plugs of simple construction must not be used.

If the mini control, regulation and display device is connected to permanently conductive construction components to which the potential compensation conductor is routed, a connector for the external potential compensation or protective conductor need not be used.

The mini control, regulation and display devices with axes and shafts is not suitable for application in hazardous dust areas. A respective note must be contained in the operating instructions.

This EC type examination certificate and future supplementations thereof also represent supplementations to the certificate of conformity PTB No. Ex-85/1131. These are no supplementations in accordance with the EU Directive 76/117/EEC, but merely refer to the succession of the old examination certificate.

18) Basic safety and health requirements

These requirements have been fulfilled by compliance with the standard mentioned above.

Certification department for explosion protection
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Dipl.-Phys. U. Völker
(Graduate physicist)

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