



## *Control and Terminal Box Type A21-E3-03509*

Exepd GmbH  
i\_PARK TAUBERFRANKEN 23  
97922 Lauda-Königshofen  
Germany  
Phone: ++49 (0) 9343 627055-0  
Fax: ++49 (0) 9343 627055-99  
Mail: [info@exepd.de](mailto:info@exepd.de)



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## 1. Product Description

The Control and Terminal Box Type A21-E3-03509 is built with an enclosure made of stainless steel. The combination enclosure is made with one screwed lid equipped with flame proof control and signal units and one terminal row behind one hinged door. The unit is completely wired to terminals acc. to a wiring diagram, which is shown inside the hinged door. For **category 2G** control and terminal boxes, the boxes are assembled with certified cable glands, terminals, signal and control units made in the types of protection Ex e, Ex d.

The construction and functionality of the control and terminal boxes for the use in the marked Ex zones is tested and documented by Exepd GmbH piece by piece. The passed quality test is shown by marking the box with the Ex type label.

## 2. Normal Handling

The Control and Terminal Box Type A21-E3-03509 is built for local installation in Ex zone 1. It is not allowed to install the product in zone 0 or zone 20/21/22.

Inside the control and terminal box there are explosion protected electrical and mechanical equipment and their accessories installed. Wall fixing is to be done by the wall mounting brackets of the enclosures.

The individual Type label shows all the electrical and for the installation in hazardous area required data.

If there is no information about the ambient temperature on the type label, the boxes can be used in the temperature range of -20°C up to 40°C.

It is prohibited to make any changes on the Control and Terminal Boxes without contacting the manufacturer.

## 3. Used Standards

EN 60079-0 / General requirements

EN 60079-7 / Increased safety „e“

EN 60079-1 / Flame proof enclosures “d”

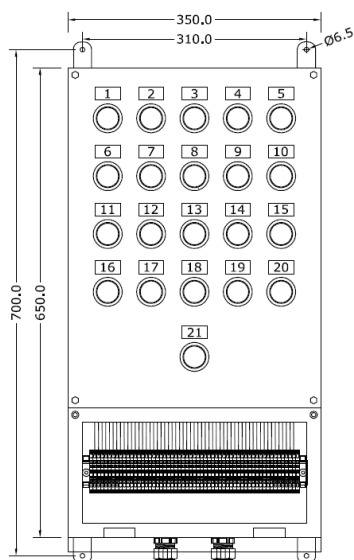
## 4. Technical Data

**Enclosure material:** Stainless Steel 1.4301 (304)

**Mechanical strength according to DIN EN 60079-0:** 7 Nm

**Protection according to 60529/IEC 60529:** IP 65


**Dimensions:** 350x650x90 mm



### Ambient temperature range:

Temperature class T6 -20°C up to + 40°C

### Explosion protection:

 II 2G Ex e d IIC T6 Gb

**EC type examination certificate:** TPS 07 ATEX 61951 1

## 5. Electrical Data

Maximum rated voltage: 230VAC / 24VDC  
Maximum rated current: 5 A / 1A  
Maximum cross section: 2,5 mm<sup>2</sup>

## 6. Flame proof build-in parts

With the Control and Terminal Box the following separate certified components are used.

Ex d IIC switches	manufacture Bartec	Ex-cert. PTB 99 ATEX 1043 U
Ex d IIC lamps	manufacture Bartec	Ex-cert. PTB 97 ATEX 1064 U
Ex d IIC illuminated switches	manufacture Bartec	Ex-cert. PTB 97 ATEX 1064 U
Ex e terminals Type ZDU / ZDK	manufacture Weidmüller	Ex-cert. KEMA 97 ATEX 2521 U

The construction and functionality of the control and terminal boxes for the use in the marked Ex zones is tested and documented by Exepd GmbH piece by piece. The passed quality test is shown by marking the box with the Ex type label.

## 7. Safety references

Devices in hazardous area must be installed, supervised, maintained and kept in good conditions by the owner of the plant. Part of this is an inspection after the transport to identify possible damages caused during the transport.

Only qualified workers are allowed to install and dismount as well as doing maintenance work on the control and terminal boxes. All universally valid rules and laws and other binding directives for the safety of people and environment must be kept.



## 8. Installation

### Mounting

The control and terminal boxes must be protected against aggressive and unusual environmental conditions which could cause damages on the equipment. This could be e.g. acids or high and low temperatures.

For installation, please refer to IEC / EN 60079-14 and other valid standards and directivities on the place of erection.

Information on the type label must be kept!

If cable glands marked with and "X" are in use, please refer to the operation manual of the gland supplier.

Wall fixing is to be done by the wall mounting brackets of the enclosures.

### Installation

The wire connection must be made in such a manner, that the insulation material and the cores itself will not be damaged. Regarding the maximum possible cross connection and electrical data, please refer to the information written on the type label.

Metal enclosures, installed in hazardous area, must be connected to the general earth system via a cable with minimum 4 mm<sup>2</sup> cross section.

If intrinsically safe circuit installed in one box together with increased safe or energy limited circuits, the installation must protect the Ex i circuit from an increase of capacity, voltage and inductivity.

The air and creeping distance between Ex e and Ex i circuits must be kept by the internal installation.



## **9. Starting**

Before the Control and Terminal Box is put into operation, the qualification for the use in the predominant hazardous area must be proofed according to the type label and the zone declaration.

It is not allowed to exceed the written data on the type label.

The functionality of the control and terminal box itself, as well as its combination with the plant or machine must be tested before the first use.

Only use the Control and Terminal Box in clean and intact condition.

## **10. Operation, Maintenance and Elimination of Disturbances**

Devices in hazardous area must be installed, supervised, maintained and kept in good conditions by the owner of the plant. For information, refer to IEC / EN 60079-17. Only skilled workers are allowed to do maintenance and the elimination of disturbance work. Before doing this work, the safety requirements must be kept!

For elimination of disturbances, only original spare parts after consulting with Exepd are allowed to use. Before using the boxes again, the safety requirements must be kept!

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## **11. Accessories and spare parts**

Please refer to [www.exepd.de](http://www.exepd.de)

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## **12. Service address**

Exepd GmbH  
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Fax: ++49 (0) 9343 627055-99  
Mail: [info@exepd.de](mailto:info@exepd.de)  
[www.exepd.de](http://www.exepd.de)

EU-Konformitätserklärung  
EU Declaration of Conformity



Dokument A21-00-C0001-12

Hersteller/Manufacturer:

Exepd GmbH, i\_PARK TAUBERFRANKEN 23, D-97922 Lauda-Königshofen

Gegenstand der Erklärung/Object of the declaration:\*

Steuer- und Klemmenkasten Typ A21-\*\*-\*\*\*\*\*

Control and terminal box type A21-\*\*-\*\*\*\*\*

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsvorschriften der Union/The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

2014/34/EU (-ABI. L 96 / 29.03.2014-)

Die Anwendung der folgenden einschlägigen harmonisierten Normen oder technischen Spezifikationen wurde als hilfreich erachtet, ganz oder teilweise die Konformität mit den wesentlichen Anforderungen zu erfüllen/The use of the following relevant harmonised standards or references to other technical specifications were helpfully, to fulfil totally or partly the conformity with the requirements:

EN 60079-0:2012/A11:2013

(IEC 60079-0:2011, modifiziert + IS1:2013);

EN 60079-7:2007 (IEC 60079-7:2006);

EN 60079-11:2012 (IEC 60079-11 :2011 + Cor.:2012);

EN 60079-31:2014 (IEC 60079-31:2013)

Kennzeichnung und Hauptzündschutzart/Marking and main type of protection:\*

⊕ II 2(1) G/D

Ex e IIC T4/T6 Gb  
Ex e ia IIC T4/T6 Gb

Ex e [ia] IIC T4/T6 Gb  
Ex tb IIIC T80°C/135°C

CE 0123

TPS 07 ATEX 61951 1

TÜV Süd Product Service GmbH (0123),  
Ridlerstrasse 65, 80339 München Germany

Qualitätssicherung Produktion gemäß/Production quality system according:

2014/34/EU

Zertifiziert durch/ certified by

TÜV Süd Product Service GmbH (0123)  
Ridlerstrasse 65, 80339 München Germany

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller/This declaration of conformity is issued under the sole responsibility of the manufacturer.

Lauda-Königshofen, den 01.01.2017

  
Stefan Höger, GF/CEO, Exepd GmbH

\*Die vollständige Produktbeschreibung und verwendete Zündschutzprinzipien sind in der zugehörigen Artikelbeschreibung zur Artikelnummer beschrieben (-> Auftragsdokumentation)  
The product and used protection principles are described in the relevant article description according the article number (-> order documents)