ComEx Control and Indicating Devices

Type 07-3511/07-3512/07-3513/07-3514/07-3515/07-3516

BARTEC

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

ComEx is a flexible system that offers both standardized and also customized local control and display stations.

The standard enclosures, single (07-3511-…/07-3514-…), double (07-3512-…/07-3515-…) and triple (07-3513-…/07-3516-…) can be combined with various actuators, switching modules, and luminous modules.

Special oil-resistant actuating elements are available.

Explosion protection

ATEX

Ex type of protection

II 2 G Ex d e IIC T6 Gb or
II 2 G Ex d e ia IIC T6 Gb
II 2 D Ex tb IIIC T80 °C Db

Up to -55 °C ≤Ta≤ +60 °C

CE 0044

Certification
CML 14 ATEX 3073X

IECEx

Ex type of protection
Ex d e IIC T6 Gb or
Ex d e ia IIC T6 Gb
Ex tb IIIC T80 °C Db

Up to -55 °C ≤Ta≤ +60 °C

Certification
IECEx CML14.0029X

Ambient temperature range

-55 °C to +60 °C
(-67 °F to +140 °F)

Approved for zones

1, 2 and 21, 22

Applicable Documents

- Certificates
- Operation instructions of the installed components
- Delivery note
  (includes a list of installed components)

The retention and observation of these documents is mandatory.

If limited components are used, the information of the correct usage can be found on shipping documents and related certificates.

Technical data

Protection class

Up to IP66/IP67 (IEC 60529)

Rated insulation voltage

Max. AC 690 V

Rated current

Max. 16 A

Intrinsically safety parameters

Only for intrinsically safe devices:

Input voltage (U_i):	30 V
Input current (I_i):	150 mA
Input Power (P_i):	1 W
Inductance (L_i):	negligible
Capacitance (C_i):	negligible

Connection type

Terminals: 2.5mm²
Torque: 0.4 Nm (0.03 lb.ft)

PE conductor terminals

4 x 2.5mm²
Torque: 0.4 Nm (0.03 lb.ft)

Cable entry

Standard version:
- M20 x 1.5 for cable with Ø 7 to 13 mm (0.24 to 0.47 in)

Special version:
- M20 x 1.5 for cable with Ø 11 to 14 mm (0,24 to 0,47 in)
- M25 x 1.5 for cable with Ø 12 to 17 mm (0,51 to 0,71 in)
- M25 x 1.5 for cable with Ø 14 to 18 mm (0,35 to 0,63 in)

Enclosure material

Plastic (thermoplastic)

Enclosure Screws

M4 x 30
Torque: 0.7 Nm - 1.2 Nm (0.05 - 0.08 lb.ft)

Potential equalisation, external

M6
Torque: 3 Nm (2.2 lb.ft)

Dimensions

See page 3.

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Safety Instructions

The ComEx control and indicating devices may be used only within the specified temperature range. Unprotected, incorrect installation can cause malfunctioning and the loss of explosion proofness. Utilization in areas other than those specified or the alteration of the product by anyone other than the manufacturer will exempt BARTEC from liability for defects or any further liability. When setting up or operating explosion resistant electrical systems, the IEC/EN 60079-14 (NEC for USA/CEC for Canada) and all relevant installation and operating regulations must be observed. The generally applicable statutory rules and other binding directives relating to workplace safety, accident prevention and environmental protection must be observed. The ComEx control and indicating device may be used only if it is in a clean and undamaged condition. It is not permissible to modify the ComEx control and indicating devices in any way. If limited components are used within the device e.g. cable glands the information of correct usage can be found on shipping documents and related certificates of the component. For intrinsically safety devices an appropriate barrier has to be used. The electrical limits that are decisive for “intrinsic safety” (see accompanying documents) must be adhered to.

Marking

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

⚠ DANGER

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

⚠ WARNING

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

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

ⓘ Note

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

Standards conformed to

EN 60079-0:2012+A11:2013
EN 60079-1:2014
EN 60079-7:2015
EN 60079-11:2012
EN 60079-31:2014

IEC 60079-0:2011 Ed. 6
IEC 60079-1:2014 Ed. 7
IEC 60079-7:2015 Ed. 5
IEC 60079-11:2011 Ed. 6
IEC 60079-31:2013 Ed. 2

Assembly, Installation, and Commissioning

⚠ WARNING

Risk of injury due to incorrect proceedings.

- ➢ Only authorized and qualified personnel who are authorized and trained to assemble electric components in hazardous (potentially explosive) areas may do any of the assembly, disassembly, installation and commissioning work.
- ➢ Use suitable tools.

Assembly/disassembly

Make sure the ComEx control and indicating device to be fitted is intact (no damage, no cracks).

Installation

ⓘ Note

The connection has to be made in accordance with the valid operational instructions of the installation devices.

The valid operational instructions are available under: www.bartec-group.com or could be ordered directly from BARTEC GmbH.

Cables must be connected carefully, i.e.:

- The insulation must extend up to the terminal.
- Take care not to damage the conductor.
- All screws on the connection terminals, including unused ones, must be tightened securely.
- All unused cable entries must be sealed are with a certified stopper.
- It is essential to observe the necessary minimum protection level IP54 for protection against gas explosions and IP6x for protection against dust explosions. (The ComEx control and indicating devices are supplied with a minimum protection class of IP6x.)
- All cores must be connected to terminals approved under IEC/EN 60079-7.

Commissioning

Before commissioning check that:

- The ComEx control and indicating device has been installed in compliance with regulations.
- The ComEx control and indicating device is not damaged.
- The junction box is clean.
- The connection has been established properly.
- The cable has been laid in an orderly fashion.
- All screws are tightened securely.

ⓘ Note

The spare parts, actuators, switching modules, and luminous modules are specified in the data sheet.

Operation

⚠ DANGER

Death or serious injury through improper use.

- ➢ The ComEx control and indicating device may be operated only within the technical limits that apply to it (see page 1).

Transport, Storage

NOTICE

ComEx control station damage through incorrect transport or incorrect storage.

Transport and storage is permissible in original packaging only

Maintenance and Fault Clearance

⚠ WARNING

Risk of injury due to incorrect proceedings.

- ➢ Only authorized qualified personnel may do any of the work relating to maintenance and fault clearance.
- ➢ IEC/EN 60079-17 must be observed. It is recommended to formulate a maintenance plan according to this standard.

⚠ WARNING

Risk of injury because the sealing is no longer assured.

- ➢ The sealing must be replaced every time the enclosure is opened.

Maintenance

The operator of the ComEx control and indicating device must keep it in good condition, operate it properly, monitor it and clean it regularly. The ComEx control and indicating device must be checked regularly for cracks and/or damage.

The owner/managing operator must schedule maintenance intervals which will suit the respective conditions of use.

Fault Clearance

The ComEx control and indicating device is defective if it is damaged and/or cracked.

Defective ComEx control and indicating devices cannot be repaired; they must be replaced considering this operational instruction.

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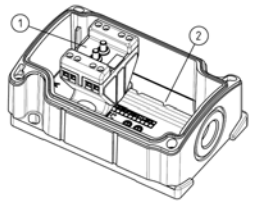
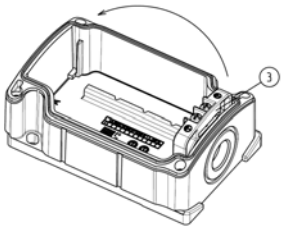
Replacing/Fitting Components

Installation Devices



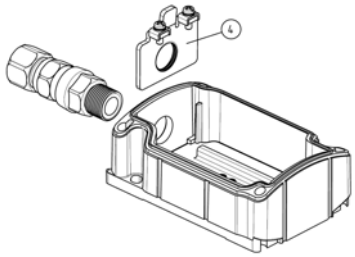
- Snap the devices (1) onto the rail of the enclosure (2) with the latch positioned in the cut-out in the rail. Please see manuals of Exchange modules.

PE Support



- Insert the PE support (3) for the protective conductor connection either at the top or the bottom of the enclosure.

Earthing Plate

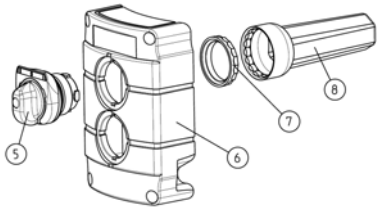


- Push the earthing plate (4) for metal cable entries in between the rib and the inside wall of the enclosure. The earthing plate is secured in place when the cable entry is screwed in.

Actuating Element

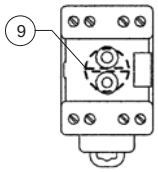
Note

The position of the built-in devices must agree with the actuating element used.



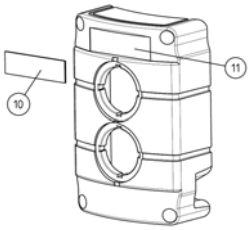
- With its projecting latch positioned correctly, insert each actuating element (5) into the hole in the enclosure cover (6) and secure it in place with the retaining nut (7) using the wrench (8)
  (2.8 – 3.4 Nm).
- Please see Manual of actuating elements 05-0003-00../….

Position Selector Switch



- If the actuating element being fitted is a position selector switch, make sure its actuating pins are in alignment over the metal plungers on the switch module (9).

Label



- Engrave or inscribe the labels (10) manually.
- Stuck the labels into the recess (11) provided in the enclosure cover.

Accessories, Spare Parts

See also BARTEC catalogue.

Disposal

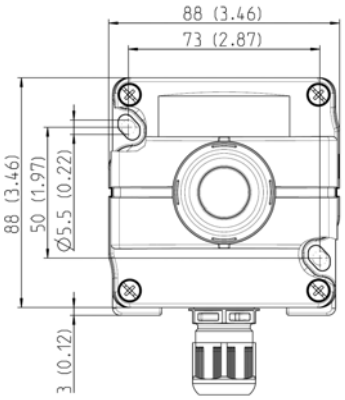
The ComEx control and indicating device components (actuators, switching modules, luminous modules, enclosure) contain metal and plastic parts. Therefore the statutory requirements for disposing of electronic scrap must be observed (e.g. disposal by an approved disposal company).

Service Address

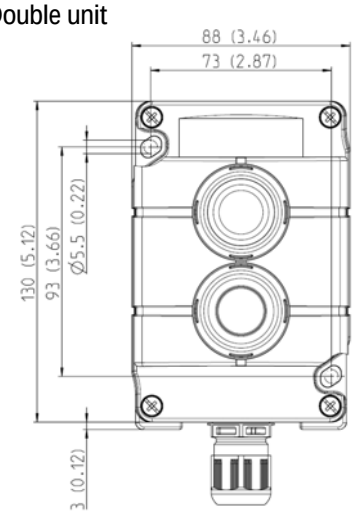
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany
Tel.: +49 7931 597 0
Fax: +49 7931 597 119

Dimensions in mm (in)

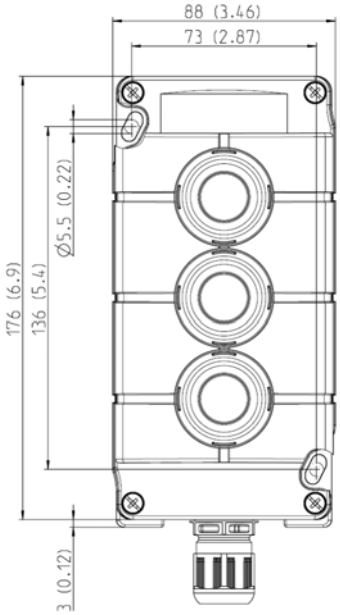
Single unit



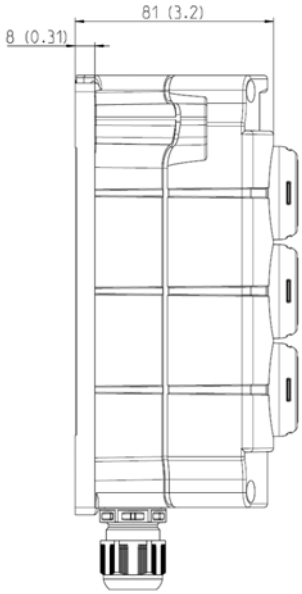
Double unit



Triple unit



Side view



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EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

Nº 01-3510-7C0001_B

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Wir	We	Nous
BARTEC GmbH,		
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
ComEx-Befehls- und Anzeigegeräte	**ComEx control and indicating devices**	**Appareils de commande et de signalisation ComEx**
Typ 07-351*-**********		
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**
EMV-Richtlinie 2014/30/EU	**EMC-Directive 2014/30/EU**	**CEM-Directive 2014/30/UE**
RoHS-Richtlinie 2011/65/EU	**RoHS-Directive 2011/65/EU**	**RoHS-Directive 2011/65/UE**
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 60079-1:2014
EN 60079-7:2015
EN 60079-11:2012
EN 60079-31:2014
EN60529 :1991 +A1:2000 +A2:2013
EN 61000-6-2:2005
EN 61000-6-4:2007 +A1:2011
CS22.2 No 61010-1-04

Kennzeichnung	Marking	Marquage
Ⓔx	II 2G Ex d e IIC T6 Gb oder/or/ou II 2G Ex d e ia IIC T6 Gb und /and/et II 2D Ex tb III C T80°C Db	
Verfahren der EU-Baumuster-prüfung / Benannte Stelle	**Procedure of EU-Type Examination / Notified Body**	**Procédure d'examen UE de type / Organisme Notifié**
CML 14ATEX3073X Issue 5 **2503 CML, Unit 1 Newport Business Park New Port Road Ellesmere Port CH65 4LZ, UK**		

CE 0044

Bad Mergentheim, den 21.03.2017

i.V. Ernst Gruber
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i.V. Michael Schulte
Leiter GW PZ

03-0383-0362

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