



## 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 i illuminated buttons, type 07-3361-15\*0/\*\*\*\* and type 07-3361-16\*0/\*\*\*\*, indicate command modes by means of a light signal lighting up or going out.

The Ex i illuminated buttons are suitable for use in almost all hazardous (potentially explosive) areas in which a visual indication of the machine's functional status is required.

The Ex i illuminated buttons are designed in conformance to the requirements of the "e" Increased Safety, "d" Flameproof Enclosure and "i" Intrinsically Safe types of protection. The Ex i illuminated buttons may be activated by intrinsically safe circuits.

The Ex i illuminated button is intended for fitting onto a mounting rail. Conductors are connected using terminals with increased safety.

The illuminated button actuator is fitted into a mounting hole in a control console or a control panel.

## Explosion protection

### ATEX

Ex type of protection

⊕ II 2 G Ex db eb ia IIC Gb

⊕ I M2 Ex db eb ia I Mb

Certification

CML 17 ATEX 1106U

### IECEX

Ex type of protection

Ex db eb ia IIC Gb

Ex db eb ia I Mb

Certification

IECEX CML 17.0046U

### Ambient temperature ranges

-55 °C to +60 °C  
(-67 °F to +140 °F)

### Operating temperature ranges

-55 °C bis +85 °C  
(-67 °F bis +185 °F)

### Approved for zones

1 and 2

### Storage/transport temperature

-55 °C to +70 °C  
(-67 °F to +158 °F)

## Technical data

### Protection class

Determined by illuminated button actuator and control station enclosure.  
Terminals: IP 20

### Weight

Approx. 110 g (0.24 lb)

### Frequency range

With AC supply voltage: 30 to 100 Hz

### Intrinsically safe input parameters

Input voltage (U <sub>i</sub> ):	30 V
Input current (I <sub>i</sub> ):	150 mA
Input power (P <sub>i</sub> ):	1 W
Inductivity (L <sub>i</sub> ):	negligible
Capacitance (C <sub>i</sub> ):	negligible

### Contacts

1 NC or 1 NO as snap switch element

### Enclosure material

Thermoplastic

### Connection

Terminal for 2.5 mm<sup>2</sup>, fine-wire

### Lamp

LED (red, green, yellow, white, blue)

### Illumination

Very bright, visible angle up to 180°

### Service life

Electrical: > 10<sup>5</sup> running hours  
Mechanical: > 10<sup>5</sup> switching cycles

### Mounting

On mounting rail NS 35/7.5

### Shock resistance

EN 60068-2-27:2009, 30 g, 18 ms

### Dimensions

See page 3

## Safety Instructions

The Ex i illuminated buttons and its actuator may be used only within the specified ambient and operating temperature range.

Utilisation in areas other than those specified or the modification of the product by anyone other than the manufacturer will exempt BARTEC from liability for defects or any further liability.

Incorrect installation can cause malfunctioning and the loss of explosion protection.

Only service technicians who are authorized to work in potentially explosive atmospheres may do any of the assembly, disassembly, installation, commissioning, maintenance, and fault clearance work.

The generally applicable statutory rules and other binding directives relating to workplace safety, accident prevention and environmental protection must be adhered to.

Before commissioning or restarting operation, check compliance with the applicable laws and directives.

The Ex i illuminated buttons may be used only if it is in a clean and undamaged condition. It is not permissible to modify the Ex i illuminated buttons in any way. The electrical limits that are decisive for "intrinsic safety" 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 60068-2-27: 2009

EN 60068-2-6:2008

EN 61000-6-2:2005

EN 61000-6-4:2007 + A1:2011

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 60068-2-27:2008

IEC 61000-6-2:2005

IEC 61000-6-4:2006 + A1:2010

## Transport, Storage

### **NOTICE**

Ex i illuminated button damage through incorrect transport or incorrect storage.

- Transport and storage is permissible in original packaging only.
- Store the Ex i illuminated button in a dry way.

## Assembly, Installation

### **WARNING**

Risk of serious injury due to incorrect proceedings.

- The IEC/EN 60079-14 and further national standards and locally applicable installation regulations have to be observed.
- Ensure that the voltage supply has been isolated or take suitable protective measures.

### Assembly

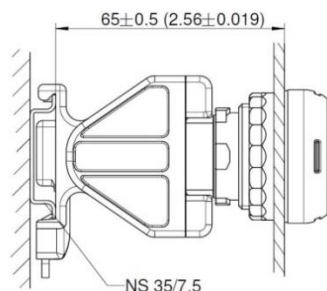
### **WARNING**

Risk of serious accidents due to damaged parts.

- Before assembly, ensure the perfect condition of the components.

Mounting the Ex i illuminated button:

- Make sure the Ex i illuminated button to be fitted is intact (no cracks).
- Position the Ex i illuminated button on the mounting rail.
- Align the position of the Ex i illuminated button on the mounting rail at the actuator.



### **Note**

The assembly of the illuminated button actuator is described in the operating instructions for actuating elements, type 05-0003-00./....

## Installation

In hazardous areas groups I and II, the Ex i illuminated button must be used:

- In appropriate enclosures with "Ex e" increased safety type of protection. The clearance and creepage distances under IEC/EN 60079-7 Section 4.3, Section 4.4 and Table 1 must be observed.
- In an enclosure that corresponds to another approved type of protection specified in IEC/EN 60079-0 Section 1.

### **Note**

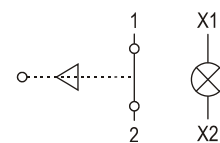
Avoid any capacitive influence from parallel conductors as well as any additional adverse heat effects on the cable.

## Take care when connecting conductors

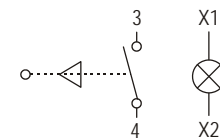
- Strip 40 mm (1.6 in) sheath off the conductor.
- Remove approx. 6 mm (0.2 in) conductor insulation from the cores.
- Prepare the ends of fine-stranded and multi-stranded conductors: Crimp wire end sleeves with suitable crimping tools. Connection cross-sections: 0.75-2.5 mm<sup>2</sup> (14-18 AWG).
- Release terminals.
- Insert conductors.
- Tight the terminals with a maximum torque of 0.4-0.7 Nm (0.3-0.5 lb.ft).

## Terminal assignment

Type 07-3361-15\*0/\*\*\*\* 1 N/C contact



Type 07-3361-16\*0/\*\*\*\* 1 N/O contact



**Ex i illuminated button**

Type 07-3361-15\*0/\*\*\*\* and Type 07-3361-16\*0/\*\*\*\*

**BARTEC****Commissioning**

Before commissioning, check that:

- The Ex i illuminated button has been installed in compliance with regulations.
- The Ex i illuminated button is not damaged.
- The connection has been established properly (make sure the cores are secure).

**Operation****⚠ DANGER**

Death or serious injury through improper use.

- The Ex i illuminated button may be operated only within the technical limits that apply to it (see page 1).

**Maintenance and Fault Clearance****⚠ WARNING**

Risk of serious injury due to incorrect proceedings.

- IEC/EN 60079-17 must be observed. It is recommended to formulate a maintenance plan according to this standard.
- Ensure that the voltage supply has been isolated or take suitable protective measures.

**Maintenance****⚠ WARNING**

Risk of serious accidents due to damaged parts.

- Check Ex i illuminated button, illuminated button actuators, actuators, screw fittings, sealings and cables regularly for cracks and damage. Make sure that they are properly established.

**NOTICE**

Ex i illuminated button/actuator damage due to incorrect cleaning.

- It is not allowed to clean Ex i illuminated buttons/actuators with compressed air.

The operator of the Ex i illuminated button must keep it in good condition, operate it properly, monitor it and clean it regularly.

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

**Fault Clearance****⚠ WARNING**

Risk of serious injury due to use of non-original spare parts.

- Use original parts only as replacements.

The Ex i illuminated button is defective if the switching unit does not perform switching functions any longer or the LED cannot light up any more. Defective Ex i illuminated buttons cannot be repaired; they must be replaced considering this operational instruction.

Defective actuators can be removed and replaced by functioning actuators of the same type.

**i Note**

For original parts, contact the firm of Bartec GmbH at the service address.

**Accessories, Spare Parts**

See BARTEC catalogue.

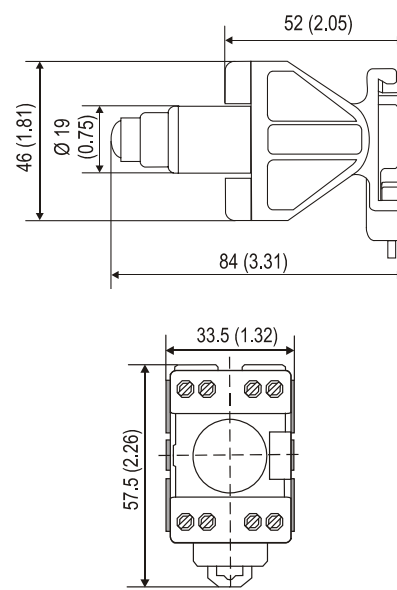
**Disposal****i Note**

Environmental damage can be caused by incorrect waste disposal. When in doubt, local authorities or specialist disposal companies can provide information on environmentally friendly disposal.

**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)**

EU Konformitätsbescheinigung  
EU Attestation of Conformity  
Attestation UE de conformité

BARTEC

N<sup>o</sup> 01-3300-7C0002\_C

Wir	We	Nous
<b>BARTEC GmbH</b> Max-Eyth-Straße 16 97980 Bad Mergentheim Germany		
erklären in alleiniger Verantwortung, dass das Produkt <b>Leuchtmodul Leuchttaster</b>	declare under our sole responsibility that the product <b>Lamp module Illuminated button</b>	attestons sous notre seule responsabilité que le produit <b>Module de signalisation, Bouton-pousoir lumineux</b>

Typ 07-335\* - \*\*\*\*/\*\*\*\*, 07-336\* - \*\*\*\*/\*\*\*\*

auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht <b>ATEX-Richtlinie 2014/34/EU RoHS-Richtlinie 2011/65/EU RoHS-Richtlinie 2015/863/EU</b> und mit folgenden Normen oder normativen Dokumenten übereinstimmt	to which this declaration relates is in accordance with the provision of the following directives (D) <b>ATEX-Directive 2014/34/EU RoHS-Directive 2011/65/EU RoHS-Directive 2015/863/EU</b> and is in conformity with the following standards or other normative documents	se référant à cette attestation correspond aux dispositions des directives (D) suivantes <b>Directive ATEX 2014/34/UE Directive RoHS 2011/65/UE Directive RoHS 2015/863/UE</b> et est conforme aux normes ou documents normatifs ci-dessous
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EN 60079-0:2012 + A11:2013

EN 60068-2-27:2009

EN 60079-1:2014

EN 61000-6-2:2005

EN 60079-7:2015

EN 61000-6-4:2007 + A1:2011

EN 60079-11:2012

Verfahren der EU-Baumusterprüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié
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CML 17 ATEX 1106 U<sup>(\*)</sup>, Issue 2


2276, CML B.V., Hoogoorddreef 15, 1101BA Amsterdam, NL

<sup>(*)</sup> Die Ex-Komponente ist Teil eines elektrischen Betriebsmittels oder eines Moduls, gekennzeichnet mit dem Symbol „U“, das nicht für sich allein verwendet werden darf und über dessen Einbau in elektrische Betriebsmittel oder Systeme zur Verwendung in explosionsgefährdeten Bereichen gesondert entschieden werden muss.  Merkmale dieser Komponente sowie die Bedingungen für ihren Einbau in Geräte und Schutzsysteme siehe Betriebsanleitung der Komponente.	<sup>(*)</sup> The Ex-component is a part of an electrical apparatus or a module, marked with the symbol "U", which is not intended to be used alone and requires additional consideration when incorporated into electrical apparatus or systems for use in explosive atmospheres.  Characteristics and how the component must be incorporated into equipment or protective systems see operation manual of the component.	<sup>(*)</sup> Le composant Ex est partie de matériel électrique ou de module, marquée du symbol « U », ne devant pas être utilisée seule et nécessitant une certification complémentaire lorsqu'elle est incorporée à un matériel électrique ou à un système pour atmosphères explosives.  Les caractéristiques du composant ainsi que les conditions d'incorporation dans des appareils ou des systèmes de protection regarde voir l'instruction d'emploi du composant.
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Bad Mergentheim, 23.08.2019

  
i.A. Simon Dyhringer  
Product Manager Ex e

  
i.V. Cristian Olareanu  
Team Leader Certification Center

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