

ComEx illuminated indicator module

for panel- and railmounted installation



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Note on instructions

When working in hazardous areas, the safety of personnel, environment 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 ComEx illuminated indicator module visualizes different system states by lighting up or going out a illuminated indicator. It is suitable for use in almost all explosive areas in which a visual indication of a machine's status is required. The ComEx illuminated indicator module is flexible and available in different colours (red, green, yellow, white and blue). The connecting cable is connected to the ComEx illuminated indicator module via screw terminals. The ComEx illuminated indicator module offer the option of simple and fast mounting on a rail- or a panel mounted installation per direct mounting to the ComEx actuator. The ComEx illuminated indicator modules are developed and certified for globally market.

Explosion protection

Notified Body Number	C€ 0044
Approved Body Number	2503
ATEX/UKEX Ex protection type	II 2G Ex db eb IIC Gb I M2 Ex db eb I Mb
ATEX/UKEX certificate number	CML 22 ATEX 1135 U CML 22 UKEX 1136 U
IECEX Ex protection type	Ex db eb IIC Gb Ex db eb I Mb
IECEX certificate number	IECEX CML 22.0014 U
CEC (UL Mark)	Ex db eb IIC Gb Class I, Division 2, Groups A, B, C, D
NEC (UL Mark)	Class I, Zone 1, AEx db eb IIC Gb Class I, Division 2, Groups A, B, C, D
UL certificate number	UL E184198
Service temperature	-55 °C to +85 °C (-67 °F to +185 °F)
For further approvals and certificates, see www.bartec.com	

Technical data

Max. Ambient temperature only with protection by flameproof enclosure "d"	+85 °C (+185 °F)	
Degree of protection	IP20 acc. to EN 60529	
Rated insulation voltage	300 V	
Working voltage	250 V	
Rated voltage	AC/DC 12...230 V	
Power consumption	< 1 W	
Lamp	LED (red, green, yellow, white, blue)	
Illumination	very bright, visible angle over 180°	
Enclosure material	thermoplastic	
Connection	0.75 mm² - 2.5 mm²/18 AWG - 12 AWG	
Electrical life	10 ⁵ running hours	
Storage and transport temperature	-55 °C to +85 °C (-67 °F to +185 °F)	
Weight	Panelmounted	approx. 110 g
	Railmounted	approx. 90 g
Mounting	Panelmounted (locked to signal device actuators 07-3400-L* by bayonet catch) Railmounted (latched on mounting rail NS 35 x 7.5)	
Shock resistance	DIN EN 60068-2-27, 30 g 18 ms	

Safety Instructions

The ComEx illuminated indicator module and the corresponding actuator may be used only within the specified ambient and operating temperature range.

Utilisation 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. 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 observed.

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 ComExflex illuminated indicator module may be used only if it is in a clean and undamaged condition. It is not permissible to modify the illuminated indicator module in any way.

Marking

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



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



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



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



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

Please see Attestations of Conformity

Transport, Storage



NOTICE
ComEx Illuminated indicator module damage through incorrect transport or incorrect storage.

- Transport and storage is permissible in original packaging only.
- Store the ComEx Illuminated indicator module in a dry place.

Assembly, Installation



WARNING
Risk of 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.

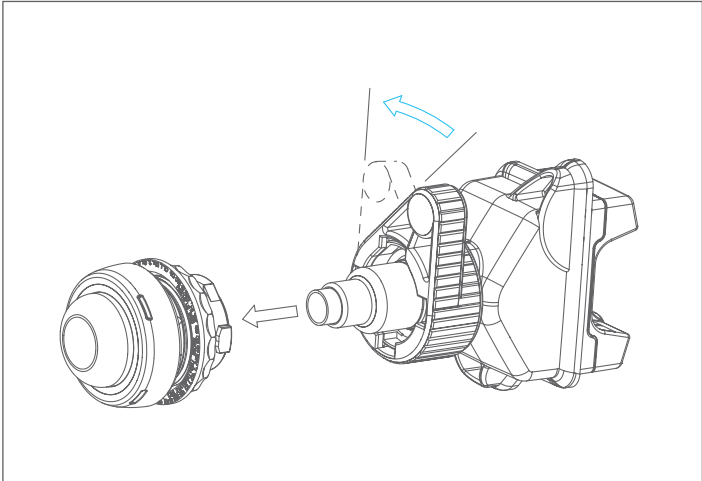
Assembly



WARNING
Risk of serious accidents due to damaged parts.

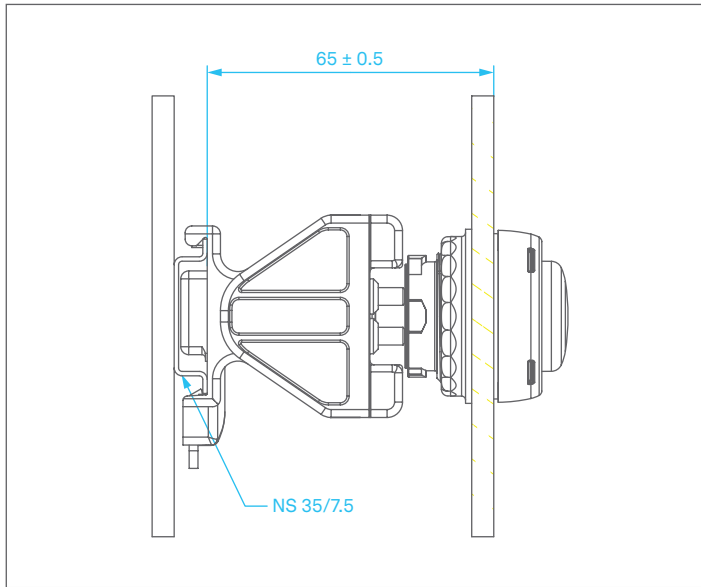
- Before assembly, ensure the perfect condition of the components.

- Mounting the ComEx illuminated indicator module for panelmounting:
- Make sure the ComEx illuminated indicator module to be fitted is intact (no cracks).
 - Position the ComEx illuminated indicator modules bayonet lock at the mounted pilot light actuator.
 - Turn the locking bolt to connect the ComEx illuminated indicator module securely to the pilot light actuator.



Mounting the ComEx illuminated indicator module for railmounting:

- Make sure the ComEx illuminated indicator module to be fitted is intact (no cracks).
- Position the ComEx illuminated indicator module on the mounting rail NS 35/7.5.
- Align the position of the ComEx illuminated indicator module on the mounting rail at the pilot light actuator.



- The service temperature of the modules shall be within -55 °C to +85 °C. The service temperature of the locking device for the modules type 07-33*4-4***/* shall not exceed +70 °C.
- Each terminal of the module is limited to one conductor per clamping unit.
- The modules shall be installed in accordance with manufacturers documentation.

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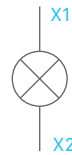
NOTE

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 mm² (14-18 AWG).
- Release terminals.
- Mount the conductor in the clamp.
- Tighten the terminals with a torque of 0.4-0.7 Nm (0.3-0.5 lb.ft).

Terminal assignment:



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NOTE

The assembly of the pilot light actuator is described in the operating instructions for actuating elements, type 07-3400-L*00

Installation

The ComEx illuminated indicator modules must be installed as a stationary unit and with protection against the risk of mechanical damage.

The following schedule of limitation must be observed:

The following conditions relate to safe installation and/or use of the equipment.

- The modules that comply with IEC 60079-7, shall be installed in an enclosure which meets the requirements of a recognised type of protection as specified in Section 1 of IEC 60079-0. When the modules are installed in an increased safety enclosure that complies with IEC 60079-7, the creepage and clearance distances shall comply with the standard requirements. The actual maximum rated current resp. power dissipation of the modules shall be determined in the type test of the electrical equipment concerned. When the module is used in a mine susceptible to firedamp (Group I), the maximum rated current shall not exceed 16 A.
- The modules that comply with IEC 60079-11, shall be installed in such a way that it is protected by an enclosure that complies at least with the requirements of IEC 60079-0 clause 26.4.2 and excludes the risk of mechanical damage. The separation distances to the module terminals shall be comply with the standard requirements.

Commissioning

Before commissioning, check that:

- The ComEx illuminated indicator module has been mounted and installed in compliance with regulations.
- The ComEx illuminated indicator module is not damaged.
- The connection has been established properly (make sure the cores are secure).

Operation

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DANGER

Death or serious injury through improper use.

- The ComEx illuminated indicator module may be operated only within the technical limits that apply to it.

Maintenance and Fault Clearance

Service-Address

BARTEC GmbH
Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Phone: +49 7931 597-0
info@bartec.com



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 ComEx illuminated indicator modules, screw fittings and cables regularly for cracks and damage. Make sure that they are properly established.



NOTICE

ComEx illuminated indicator module damage due to incorrect cleaning.

- It is not allowed to clean dirty ComEx illuminated indicator module with compressed air.

The operator of the ComEx illuminated indicator module must keep it in good condition, operate it properly, monitor it and clean it regularly. The owner/managing 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 ComEx illuminated indicator module is defective if the LED cannot light up any more. Defective ComEx illuminated indicator module cannot be repaired; they must be replaced considering this operational instruction.

Disposal



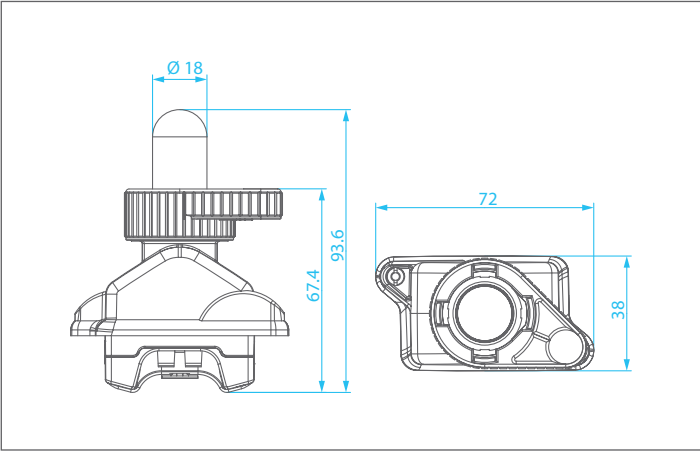
NOTE

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.

The components in the ComEx illuminated indicator module contain metal and plastic parts. Therefore the statutory requirements for disposing of electronic scrap must be observed

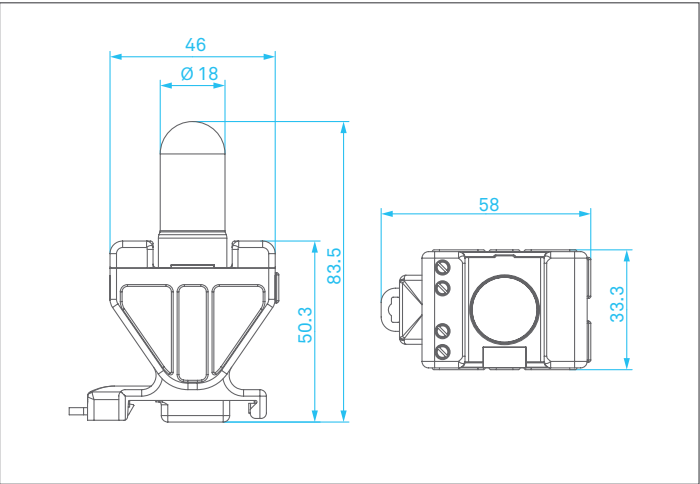
Dimensions in mm

ComEx illuminated indicator module for panelmounted
07-3354-41*



Dimensions in mm

ComEx illuminated indicator module for railmounted
07-3352-11*

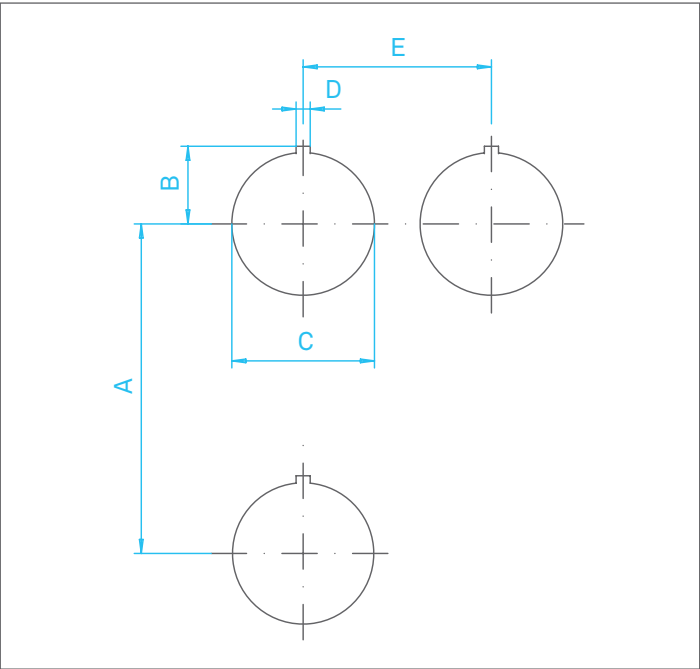


Installation dimensions

NOTICE

Damage to elements due to incorrect installation dimensions.

- The minimum spacing between the mounting holes must be observed.



Dimensions

	mm	in
A	70	2.8
B	16.5	0.7
C	Ø 30.3 ^{+0.3}	Ø 1.2 ^{+0.01}
D	3	0.1
E	40	1.6

If the control and signal device actuators and modules are not placed directly below each other in a grid structur, the row spacing of 75 mm must be maintained.

Konformitätsbescheinigung
Attestation of Conformity
Attestation de conformité
Nº 01-3300-7C0010-A



Wir	We	Nous
BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim Germany		
erklären in alleiniger Verantwortung, dass das Produkt Schaltmodul, Steuerschalter, Leuchtmodul, Leuchttaster, Potentiometer	declare under our sole responsibility that the product Switch Module, Control Switch Module, Illuminated Indicator Module, Illuminated Push Button Module, Potentiometer Module	attestons sous notre seule responsabilité que le produit Module de commutation, module d'interrupteur de commande, module d'indicateurs lumineux, module de bouton-poussoir lumineux, module de potentiomètre

Switch Module Type 07-332*_*0/** and Type 07-3382-****/******
Control Switch Module Type 07-3332-1*/******
Illuminated Indicator Module Type 07-335*_*0/****
Illuminated Push Button Module 07-336*_*0/****
Potentiometer Module Type 07-337*_*D0/****

auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht ATEX-Richtlinie 2014/34/EU EMV-Richtlinie 2014/30/EU RoHS-Richtlinie 2011/65/EU WEEE-Richtlinie 2012/19/EU und mit folgenden Normen oder normativen Dokumenten übereinstimmt	to which this declaration relates is in accordance with the provision of the following directives (D) ATEX-Directive 2014/34/EU EMC-Directive 2014/30/EU RoHS-Directive 2011/65/EU WEEE-Directive 2012/19/EU and is in conformity with the following standards or other normative documents	se référant à cette attestation correspond aux dispositions des directives (D) suivantes Directive ATEX 2014/34/UE Directive CEM 2014/30/UE Directive RoHS 2011/65/UE Directive WEEE 2012/19/UE et est conforme aux normes ou documents normatifs ci-dessous
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EN IEC 60079-0:2018
EN 60079-1:2014
EN IEC 60079-7:2015/A1:2018
EN 60079-11:2012
EN 61000-6-2:2005
EN 61000-6-4:2007+A1:2011
EN IEC 63000:2018

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 22ATEX1135U^(*) – Issue 0
2776, CML B.V., Hoogoorddreef 15, 1101BA Amsterdam, NL

^(*) 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.	^(*) 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.	^(*) 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, 26.01.2024

i.A. Simon Dyhringer
Product Manager Ex e

i.A. Steffen Mika
Team Leader Certification
Management R&D ESS

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