

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 switch module, type 07-3323-4.../...., is used everywhere in almost all hazardous areas where machine functions are to be activated by pressing a button or actuating a switch.

The switch module is equipped with self-cleaning contacts. All N/O contacs featuring positive break operation.

The connection is established by means of terminals at the back of the switch module.

The switch module is designed for combining with different actuating elements and a junction box. It is attached without tools to the actuating element.

The actuating element is inserted into a mounting hole in an Ex e enclosure, a control console or control panel.

The easy installation of the actuator allows conformance to a high IP degree of protection.

When inserted into a control console or control panel, there is the option of mounting the junction box. This is connected to the switch module by means of two screws.

Explosion protection

ATEX

Ex protection type

Ⓔx II 2G Ex de IIC Gb

Ⓔx I M2 Ex de I Mb

Certification

PTB 99 ATEX 1043 U

IECEx

Ex protection type

Ex de IIC Gb

Ex de I Mb

Certification

IECEx PTB 07.0046U

Ambient temperature ranges

-55 °C to +60 °C (-67 °F to +140 °F)

or

-55 °C to +40 °C (-67 °F to +104 °F)

Approved for zones

1 and 2

Technical data

Protection class

Determined by actuating element and additional enclosure. Terminals: IP 20

With junction box and actuating element: up to IP 67

Weight

Approx. 110 g (0.243 lb)

Rated insulation voltage

690 V

Rated voltage (U_e)

AC 230 V and 400 V

DC 24 V and 110 V

Enclosure material / manufacturing process

Thermoplastic / injection moulding

Contact material

$AgSnO_2$

Contacts

1 N/C contact and 1 N/O contact / 2 N/C contacts / 2 N/O contacts

AC-12: 16 A, 400 V

AC-15: 10 A, 400 V

DC-13: 0.5 A, 110 V

DC-13: 1 A, 24 V

Conventional thermal current I_{the}

16 A / +40 °C (+104 °F)

11 A / +60 °C (+140 °F)

Service life

Mechanical: > 10^5 switching cycles

Mounting

Locked, by bayonet lock

Dimensions

See page 3

01-3323-7D0004-03/11-STVT-308485

Reservation Technical data subject to change without notice. Changes, errors and misprints may not be used as a basis for any claim for damages.

Safety Instructions

The switch module and its actuating element 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.

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

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

The switch module may be used only if it is clean and not damaged in any way. It is not permissible to modify the module in any way.

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

IEC 60079-0:2007
EN 60079-0:2009
IEC/EN 60079-1:2007
IEC 60079-7:2006
EN 60079-7:2007
DIN EN 60068-2-27:2009, 30 G, 18 ms

Assembly, Installation, and Commissioning

⚠ WARNING

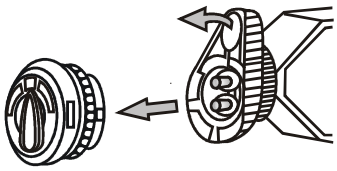
Risk of injury due to incorrect proceedings.

- Only authorized and qualified personnel may do any of the assembly, disassembly, installation and commissioning work.
- Pay attention to the type of mounting required (for fitting into enclosure/attachment with junction box).
- Use suitable tools.

Assembly/disassembly

Mounting the switch module:

- Make sure the switch module to be attached is intact (no cracks).
- Position the switch module's bayonet lock at the mounted actuating element.
- Turn the closing latch to connect the switch module securely to the actuating element.



Note

The assembly of the actuating element as well as the assembly of the switch module and the actuating element is described in the operating instructions for actuating elements, type 05-0003-00../....

Installation

For fitting into enclosure

In hazardous areas groups I and II, the switch module must be used:

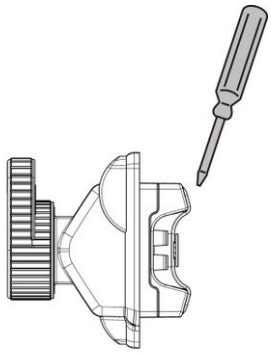
– In appropriate enclosures with "Ex e" increased safety type of protection. The clearance and creepage distances under IEC/EN 60079-7 Section 4.3, Section 4.4 and Table 1 must be observed.
– In an enclosure that corresponds to another approved type of protection specified in IEC/EN 60079-0 Section 1.

With junction box

The switch module must be installed as a stationary unit and with protection against the risk of mechanical damage.

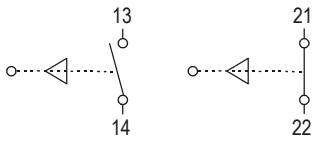
Take care when connecting conductors:

- Strip 40 mm (1.575 in) sheath off the conductor.
- Remove approx. 6 mm (0.236 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.
- Insert conductors diagonally.
- Tight the terminals with a maximum torque of 0.4-0.7 Nm, while holding the screwdriver slightly at an angle.

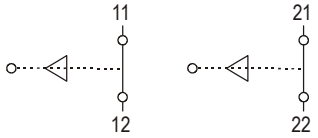


Terminal assignment:

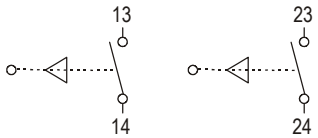
1 N/O contact and 1 N/C contact



2 N/C contacts



2 N/O contacts



Commissioning

Before commissioning, check that:

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

01-3323-7D0004-03/11-STVT-308485

Transport, Storage

NOTICE

Switch module 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.

The operator of the switch module must keep it in good condition, operate it properly, monitor it and clean it regularly.

Maintenance

⚠ WARNING

Risk of serious accidents due to damaged parts.

- Check switch modules, actuating elements, actuators, sealings, and cables regularly for cracks and damage. Make sure that they are properly established.

NOTICE

Switch module/actuator damage due to incorrect cleaning.

- It is not allowed to clean switch modules/actuators with compressed air.

Fault Clearance

⚠ WARNING

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

- Use original parts only as replacements.

The switch module is defective if the switching unit does not perform switching functions any longer. Defective switch modules cannot be repaired; they must be replaced considering this operational instruction.

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

Accessories, Spare Parts

Note

The switch module can be connected to a junction box. Information on the junction box and junction box assembly is described in the Operating Instructions for the junction box, order number 05-0042-0050.

For further accessories and spare parts, see BARTEC catalogue.

Disposal

The components in the switch module and the actuator 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

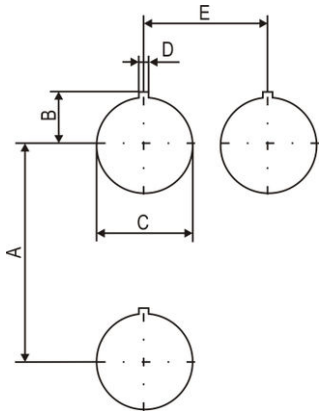
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany
Tel.: +49 7931 597-0
Fax: +49 7931 597-119

Installation dimensions

NOTICE

Damage to elements due to incorrect installation dimensions.

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

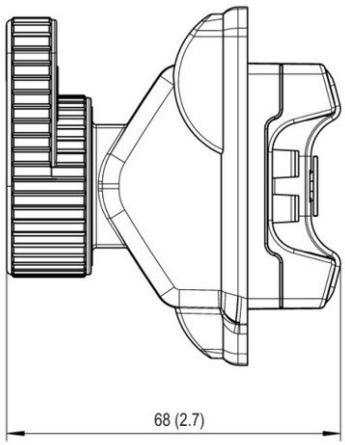


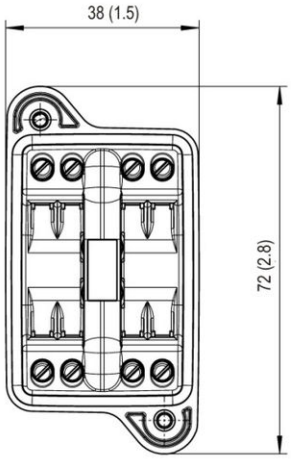
Dimensions:

	mm	in
A*	70	2.8
B	16.5	0.65
C	Ø 30.3	Ø 1.9
D	3	0.12
E*	40	1.6

*Recommended spacing for mushroom push-button, slam button, and: position selector switches with protective shroud: 100 mm (3.9 in).

Dimensions in mm (in)





01-3323-7D0004-03/11-STVT-308485

Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

Nº **01-3323-7C0003**

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
Schaltmodul mit Klemmen	**Switch module with terminals**	**Elément de contact avec bornes**
	Typ 07-3323-4*/****	
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 94/9/EG	**ATEX-Directive 94/9/EC**	**ATEX-Directive 94/9/CE**
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 :2009	**EN 60079-1 :2007**	**EN 60079-7 :2007**
EN 60068-2-27 :2009, 30 G 18 ms		
Kennzeichnung	**Marking**	**Marquage**
II 2 G Ex de IIC Gb **I M2 Ex de I Mb**		
Verfahren der EG-Baumusterprüfung / Benannte Stelle	**Procedure of EC-Type Examination / Notified Body**	**Procédure d'examen CE de type / Organisme Notifié**
PTB 99 ATEX 1043 U		
0102 PTB, Bundesallee 100, 38116 Braunschweig, D		
0044		

Bad Mergentheim, den 14.06.2011

ppa. Ewald Warmuth
Geschäftsleitung / General Manager

03-0383-0289

01-3323-7D0004-03/11-STVT-308485