

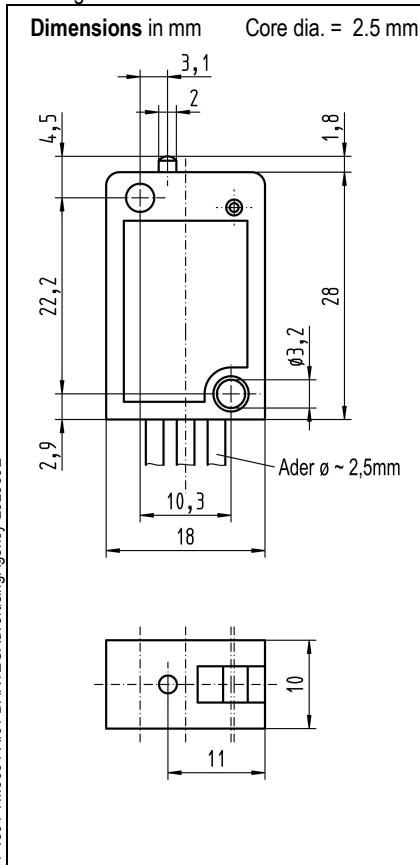


Description

Miniature insert switches are used wherever the space for explosion-proof elements is very confined. These switches are particularly suitable for use in valves, thermostats, pressure switches, actuators, level gauges and switchgear. The insert switches are equipped with integral cores for establishing an electrical connection.

The switch has fine silver contacts as standard. Gold-coated fine silver contacts are available for particularly low voltage.

The length of the connection cable is variable.



Insert switch incl. actuator

Explosion protection

Ex protection type
 II 2G Ex d IIC
 I M2 Ex d I
 Ex d IIC

0044

Certification
 PTB 98 ATEX 1033 U
 IECEx PTB 09.0032U

Ambient temperature
 -20 °C to +40 °C

Approved for zones
 1 and 2

Current carrying capacity
 Max. 5 A
 (depending on contact material and conductor cross-section)

Technical data

Rated voltage/current
 AC 250 V, 5 A
 DC 250 V, 0.25 A

IP rating
 IP 54 (EN 60529)

Contact options
 1 N/C contact or 1 N/O contact or
 1 change-over contact with equal potential

Tightening torques
 Fastening screws: max. 0.6 Nm

Switching rate
 max. 1000/h

Operating force
 max. 1.4 N

Release force
 min. 0.25 N

Contact travel
 Pre-travel VLW: 0.5 to 1.0 mm
 Overtravel NLW: min. 0.2 mm
 Reset travel RLW: ~ 0.55 mm
 Differential value DW: max. 0.13 mm
 Free travel LLW: ~ 0.5 mm

Service life
 Mechanical: > 2 x 10⁶ switching cycles
 Electrical: depending on load

Enclosure material
 Thermosetting plastic

Plunger/additional actuator
 Stainless steel

Electrical connection
 See data sheet

01-1501-7M0001-A-01-BARTECAdvertisingAgency-292960E

Safety Instructions

The miniature insert switch may be used only within the specified temperature range.

Incorrect installation without protection can cause malfunctioning and the loss of explosion protection.

The miniature insert switch may be connected and assembled/disassembled only by qualified personnel who are authorised and trained to install electric components in hazardous areas.

Always disconnect the device from voltage before assembly/disassembly.

Utilisation in areas other than those specified or the modification of the product by anyone other than the manufacturer is not permitted and will exempt BARTEC from liability for defects and from any further liability.

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

The miniature insert switch may be operated only if it is clean and not damaged in any way. Do not use the miniature insert switch as a mechanical stop.

The switch must be replaced after any short circuit that occurs because it is a piece of encapsulated equipment and it is therefore not possible to check the state of the switch contacts.

Marking

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

DANGER

Non-observance leads to death or serious physical injury. The necessary safety precautions must be taken.

CAUTION

Warning of damage to property and financial and penal disadvantages (e.g. loss of guarantee rights, liability claims etc.).

ATTENTION

Important instructions and information on preventing disadvantageous behaviour.

NOTE

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

Standards conformed to

- EN 60079-0: 2006
- EN 60079-1: 2007
- IEC 60079-0: 2004
- IEC 60079-1: 2007
- EN 60947-1: 2007
- EN 60947-5-1: 2004
- EN 60529: 1991 +A1: 2000

Assembly and Commissioning

ATTENTION

Only authorised qualified personnel may do any of the assembly, disassembly, installation and commissioning work..

CAUTION

The relevant installation and operating regulations must be observed when setting up or operating explosion-protected electrical systems.

Check before assembly that the miniature insert switch is in perfect condition.

Assembly/disassembly

ATTENTION

The miniature insert switch must be fitted in a manner that ensures that it will be protected from impact energy.

When necessary, switches mounted outdoor must be fitted into outer enclosures with an adequate protection class.

Only suitable tools may be used for installation.

Installation

ATTENTION

Care must be taken not to damage the cores during installation. Wire end sleeves must be crimped with suitable crimping tools.

Commissioning

Before commissioning check that:

- the device has been installed correctly
- the device is not damaged
- there is no foreign matter obstructing the actuating travel
- the junction box is clean
- the connection has been established properly
- the cores have been laid correctly
- all screws are tightened securely

NOTE

The types of contact, core marking and actuator variants can be found on the following page.

Operation

DANGER

The miniature insert switch may be operated only within the technical limits that apply to it (see the Explosion protection and Technical data sections).

CAUTION

Do not make any technical modifications to the switch.

Maintenance and Fault Clearance

The operator of the miniature insert switch must keep it in an orderly condition, operate it correctly, monitor it and clean it regularly. The insert switch enclosure must be checked regularly for cracks and other damage.

NOTE

Dirty switches/actuators can be cleaned with compressed air.

The miniature insert switch is defective if switching functions are no longer possible with the switching unit or if the actuator does not activate the switching unit any longer. Defective insert switches cannot be repaired; they must be replaced.

Accessories, spare parts

There are no accessories or spare parts for the miniature insert switch.

Disposal

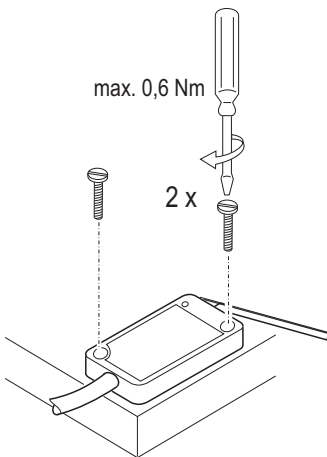
The components in the miniature insert switch and the actuator contain metal and plastic parts.

For that reason, the statutory requirement for electronic scrap must be adhered to (e.g. disposal by an approved disposal company).

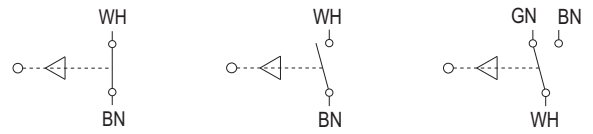
Service address

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

Assembly



Connection

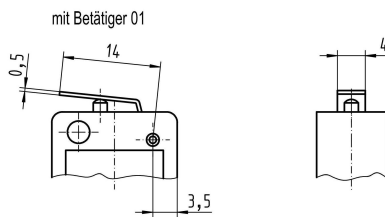


Key

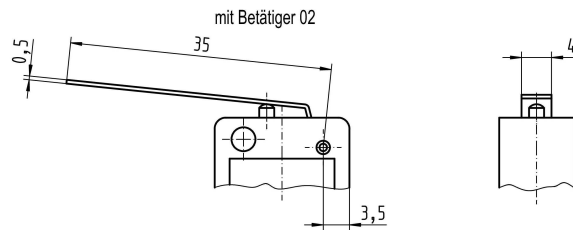
WH = white core
 BN = brown core
 GN = green core

Actuator dimensions

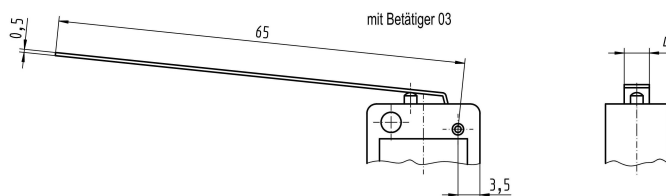
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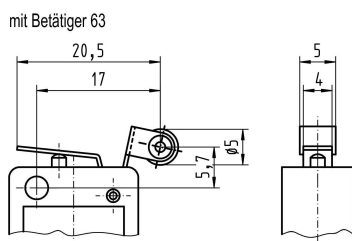
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07-1501-xxxx/63



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Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

N° 01-1501-7C0001

BARTEC

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

Wir	We	Nous
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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
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**Miniatur
Einbauschalter**

Miniature insert switch

**Microrupteur
encastrable**

Typ 07-1501-..../....

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
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**ATEX-Richtlinie
94/9/EG**

**ATEX-Directive
94/9/EC**

**ATEX-Directive
94/9/CE**

**EMV-Richtlinie
2004/108/EG**

**EMC-Directive
2004/108/EC**

**CEM-Directive
2004/108/CE.**

**Maschinen-Richtlinie
2006/42/EG**

**Machinery Directive
2006/42/EC**

**Directive Européenne
de l'Equipment
2006/42/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 60079-0:2006
EN 60079-1:2007**

**EN 60947-1:2007
EN 60947-5-1:2004**

EN 60529:1991+A1:2000

Kennzeichnung

Marking

Marquage

**II 2G Ex d IIC
I M2 Ex d I**

**Verfahren der EG-
Baumusterprüfung /
Benannte Stelle**

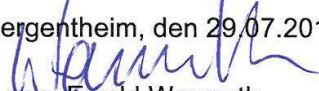
**Procedure of EC-
Type Examination /
Notified Body**

**Procédure d'examen
CE de type /
Organisme Notifié**

PTB 98 ATEX 1033 U

0102 PTB, Bundesallee 100, 38116 Braunschweig, D

0044

Bad Mergentheim, den 29.07.2010

ppa. Ewald Warmuth
Geschäftsleitung / General Manager