



#### 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 junction box with cable gland is designed for combining with various function modules. Selection chart, see page 3.

Two screws are used to connect the junction box to the respective function module.

The junction box allows a conductor to be connected, which can be assembled either to order or by the customer.

## Explosion protection

#### Ex protection type

Function module with junction box

€ II 2G

Ex de IIC T6 Gb

€ II 2D

Ex tb IIIC T80 °C Db IP66

#### Certification

Function module with junction box

PTB 11 ATEX 1010 X IECEx PTB 11.0025X

#### Ambient temperature ranges

-55 °C to +40 C°/+50 °C/+60 °C (-67 °F to 104 °F/+122 °F/140 °F)

Depends on the function module; observe the specifications on the type label

## Approved for zones

1, 2 and 21, 22

# Technical data

#### **Protection class**

Function module with junction box and actuating element: Up to IP 66/IP 67

#### Weight

Approx. 40 g (0.09 lb)

#### **Electrical parameters**

See operational instruction of the respective function module

#### Cable gland clamping range

- 4 to 9 mm (0.16 to 0.35 in)
- 5 to 10 mm (0.2 to 0.39 in)

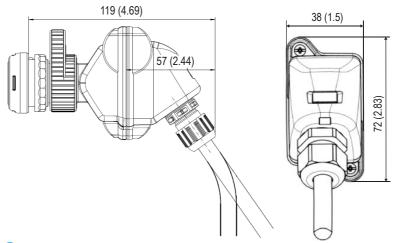
# Enclosure material / manufacturing process

Thermoplastic / injection moulding

#### Mounting

Screwed to the function module

## Dimensions in mm (in)





Observe the minimum bending radii of the inserted cables.

### ComExflex Junction box

Order number 05-0042-0050

# Safety Instructions

Junction box, function module, and the corresponding actuating element may be used only within the specified ambient and operating temperature range.

Utilization 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 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

The junction box may be used only if it is in a clean and undamaged condition. It is not permissible to modify the junction box 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.



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 IEC 60079-31:2008 EN 60079-31:2009

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.
- Install the junction box as a stationary unit and protected it against the risk of mechanical damage as well as the risk of electrostatic charge
- Install cable firmly.
- Use suitable tools.
- The temperature range of the conductor could reduce the temperature range of the product. Example: Conductor, -20 °C (-4 °F), → max. ambient temperature of the product, -20 °C (-4 °F).

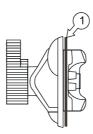
#### Assembly/disassembly



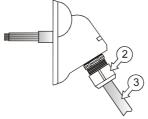
The switch module in the sketch serves as an example of all function modules.

Mounting the junction box:

Make sure the junction box and the sealings to be fitted are intact (no cracks).



- Put the sealing (1) with the round side facing downwards into the circumferential groove.
- Strip approx. 40 mm (1.575 in) from the length of the conductor and remove approx. 6 mm (0.236 in) conductor insulation from the cores.



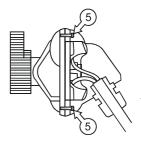
- Open the cap nut (2) far enough to allow the conductor to be inserted.
- Feed the conductor (3) into the cable gland on the junction box until there is sufficient length available for preparing the conductor connection.
- Close the cap nut (2).

Connecting the conductor (4).

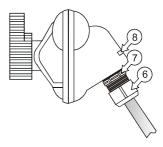
# (i) Note

The conductor connection and the terminal assignment for the individual function modules are described in the operating instructions for each function module.

Push the junction box firmly onto the function module.



Tight the screws (5) with a torque of 0.5-0.6 Nm.



- Tighten the cap nut (6) with a torque of 1.3 Nm. (fixing nut (7), max. torque 0.6 Nm).
- Open the clip to take out the label (8), write on it and put it back in again.

#### Commissioning

Before commissioning, check that:

- The entire device has been installed in compliance with regulations.
- The entire device is not damaged.
- The connection has been established properly.

# Transport, Storage

#### NOTICE

Junction box damage through incorrect transport or incorrect storage.

Transport and storage is permissible in original packaging only.

### ComExflex Junction box

Order number 05-0042-0050

# BARTEC

### **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 junction box 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 junction boxes, sealings, and cables regularly for cracks and damage. Make sure that they are properly established.

#### NOTICE

# Junction box damage due to incorrect cleaning.

> It is not allowed to clean dirty junction boxes with compressed air.

#### **Fault Clearance**

#### **⚠ WARNING**

#### Risk of serious injury due to use of nonoriginal spare parts.

Use original parts only as replacements.

The junction boxes are defective if they have cracks or other damage or if the cable no longer fits absolutely securely.

Defective junction boxes cannot be repaired; They must be replaced considering this operational instruction.

# **Accessories, Spare Parts**

For further accessories and spare parts, see BARTEC catalogue.

### **Disposal**

The components in the function module 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**

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#### Selection chart

Illustration	Description and type/order number	
	Switch module with junction box  Switch module (1)  Junction box (2)	type number 07-3323-5/  type number 07-3323-4/  order number 05-0042-0050
	Lamp module with junction box  Lamp module	type number 07-3353-5/  type number 07-3353-4/
	Illuminated button with junction box Illuminated button	type number 07-3363-5/  type number 07-3363-4/
	Potentiometer with junction box  Potentiometer	type number 07-3373-5/ type number 07-3373-4/