

Read and follow these safety instructions first



1. Safety instructions

- 1.1 Installation, mounting (fix into hoses), putting into operation, maintenance, removal and repair may be carried out by qualified experienced specialists with knowledge in pressurized piping construction only.
- 1.2 The statutory and other applicable regulations and standards have to be noticed and kept.
- 1.3 The pressure of maximum 10 bar, temperature of maximum +120 °C, the instructions of the
 - > EU-Declaration of conformity EUKE-DG-K100and – if a limit switch is mounted – the instructions of the
 - > Appliance information KE-GI-... resp. the technical datas of the KE-TD-..have to be noticed and kept.
- 1.4 Putting into operation and pressure admission only
 - after correct building-in of the hose coupling into the delivery hose
 - after correct mounting of the coupling with thread at the tube (threaded connection) and if need by fixation with the locating screw
 - with closed coupling connection
- !!! Before pressurize the tubing make sure that the couplings are correct inserted resp. connected and
 - with Storz-couplings
 - is pulled to the limit stop
 - with couplings according to DIN 28 450
 - the clamping ring is tightened firmly and the safety lever is folded down
 - with KAMLOK – couplings
 - both levers are turned down to the coupling
- 1.5 **Disconnect resp. open the coupling connection only when pressure-free.**



ATTENTION ! Danger of injuries

- If loosened and opened in pressurized condition the blank coupling, blank cap resp. closing cover or closing plug will accelerate like a bullet and may cause serious injuries and damages.
- If loosened in pressurized condition the hose will lay about one and may cause serious injuries.

- !!! Before loosen resp. open the coupling connection make sure that the tubing is pressure-free.

Depending on over pressure and hose diameter place suitable warning information.

e.g. **“Loosen only in pressure-free condition”**

- 1.6 If one of the coupling elements is damaged the pressurizing has to be shut off immediately and the tubing resp. hose line is to relieve from any pressure.
 - 1.7 Elements of the coupling should be removed or demounted only in pressure-free condition.
- ▶ !!! For couplings with build-in limit switch take also notice of the safety instructions on the back.

Read and follow these special conditions and safety instructions



2. General safety instructions

- 2.1 The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an “authorized person” for explosion protection.
- 2.2 Comply with the requirements of DIN EN 60079-14, DIN EN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.



3. Safety Instructions **Gas+Dust** and **hybrid mixtures** for the application of couplings in explosive hazardous areas.

- 3.1 The couplings are allowed to be mounted on tubing
 - when the internal is classified as zone 0 or zone 20 resp. zone 0+20 (hybrid mixtures) or lower
 - when the external area is classified as zone 1 or zone 21 resp. zone 1+21 (hybrid mixtures) or lower
- !!! By attached electrical devices – e.g. limit switches or RFID – systems to recognize the connection – the couplings has to be mounted in the external area just in that zone the electrical devices are classified for.
- 3.2 The coupling has to be constantly conductible connected to the electrically conductive, earthed tubing.
 - If the tubing is not electrically conductive the coupling has to be earthed.
- 3.3 If combustible gases and vapours or combustible dusts with a minimum ignition energy under 3 mJ or a minimum ignition temperature under +300 °C (BAM assessment) were carried inside the coupling resp. by an appliance within zone 0 and/or zone 20 only the stainless steel variants of the product touching parts are permissible.



4. Safety Instructions for the application of limit switches in explosive hazardous areas.

- 4.1 Comply with the electrical connection take notice of the local and statutory rules and regulations and/or the VDE 0100.
- 4.2 Before electrical connection, compare the supply voltage with the details at the data plate.

for the version KE and KI Option B0 **Dust** 

- 4.3 The limit switches can be used in areas classified as zone 22.
- 4.4 A fuse (with max. 4 A) has to be connected in series to the supply voltage.
- 4.5 Protect the signal contacts of the limit switch KE against voltage peaks when inductive loads are connected.

for the version KN **Gas+Dust** 

- 4.6 The limit switches can be used in areas classified as zone 1 and zone 20 or lower.
- 4.7 To keep the intrinsically reliability a certified barrier or a certified isolation amplifier with an intrinsically safe circuit according to the present category has to be connected in series for power limitation.

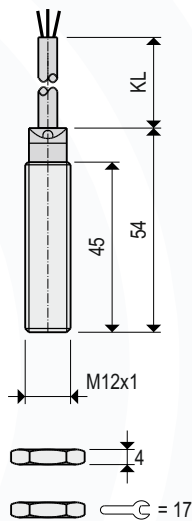


Technical data

Dimensions

KI-BI3U-M12AP- .

Brand TURCK
Type Bi3U-M12-AP6X
Ident No. 16 341 00



007-0245

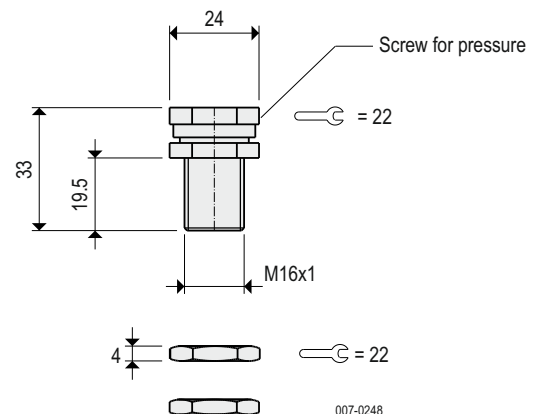
Order code

KI-BI3U-M12AP-2 for 2 m cable
KI-BI3U-M12AP-5 for 5 m cable
KI-BI3U-M12AP-0 for 10 m cable

further technical data you can get under
www.turck.de

Clamp mounting K-KH-12-2S

Brand BALLUFF
Type KH-12-2S



007-0248

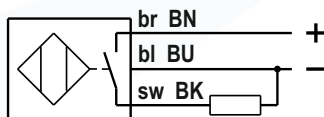
Order code

K-KH-12-2S

further technical data you can get under
www.balluff.de

Wiring connection

Kabel 3 x 0,34 mm²
Kabellänge (KL) 2 = 2 m
5 = 5 m
0 = 10 m



TURCK Bi3U

007-AP01

Technical data

Materials housing CuZn, chromium plated
active surface PA12-GF30
clamp mounting AIMGSi1

Mounting position any

Ambient temperature -20 °C ... +60 °C

Supply voltage 10 ... 30 V DC

Load current capacity ≤ 200 mA, constant current

Switching function PNP, Normally open

Type of protection IP68/IP65 acc. to DIN EN 60529

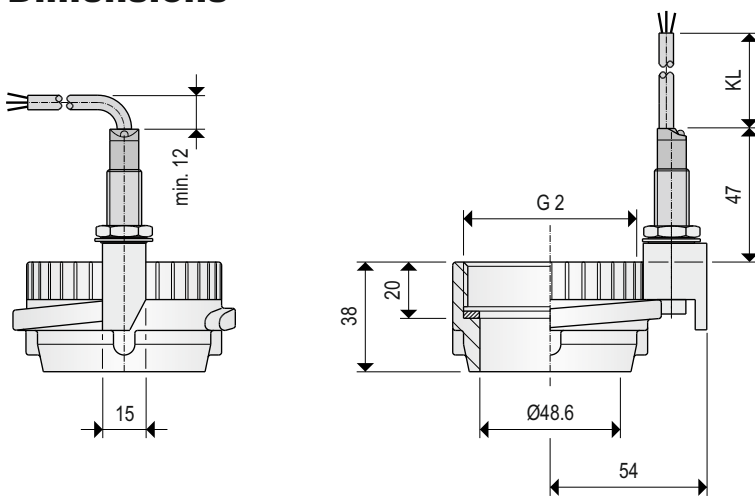
Maintenance none

ATEX option

B0 **Dust**  II 3D Ex tc IIIC T110 °C Dc

Appliance information

Dimensions



Order code

| Type | NG | G | W | KL |
|---------|-----|-----|----|----|
| KI - VK | 050 | IG2 | MS | 2 |
| KI - VK | 050 | IG2 | VA | 2 |

NG = Nominal size
G = Thread
W = Material
KL = Cable length

According to Directive 2014/68/EU for pressure equipment:

Usable for hazardous gases and liquids of group 1 up to 10 bar and up to DN 100

For example in pneumatic conveyor systems with combustible dusts etc.

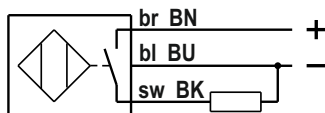
Result of the evaluation of ignition danger acc. to DIN EN ISO 80079-36:

The couplings (without switches) have no potential source of ignition on their own.

007-0211

Wiring connection

Cable 3 x 0.34 mm²
Cable length (KL) 2 = 2 m
5 = 5 m
0 = 10 m



TURCK BI3U

007-AP01

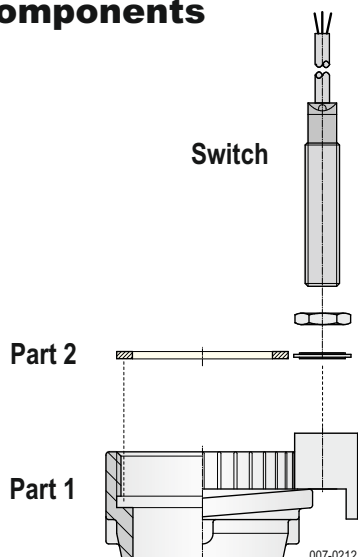
Technical data

| | | |
|-----------------------|-----|-------------------------------------|
| Materials | (W) | AL = Aluminium VA = 1.4408 / 316 |
| Switch active surface | | CuZn, chromium plated PA12-GF30 |
| Mounting position | | any |
| Ambient temperature | | -20 °C ... +60 °C |
| Supply voltage | | 10 ... 30 V DC |
| Load current capacity | | ≥ 200 mA, constant current |
| Switching function | | PNP, Normally open |
| Type of protection | | IP68/IP65 acc. to DIN EN 60529 |
| Maintenance | | none |

ATEX-Option

B0 **Dust**  II 3D Ex tc IIIC T110 °C Dc

Components



Order code switch

| Switch |
|------------------------|
| KI - BI3U - M12 AP - 2 |
| KI - BI3U - M12 AP - 5 |
| KI - BI3U - M12 AP - 0 |

Order code Part 1

| NG | G | W | E |
|-------------|-----|----|---|
| K - FVK 050 | IG2 | MS | E |
| K - FVK 050 | IG2 | VA | E |

incl. seal ring

NG = Nominal size
G = Thread
W = Material

Order code Part 2

| Seal ring | Material |
|---------------|-------------------|
| K-TWIG2DRG-PU | Polyurethan, blue |
| K-TWIG2DRG-PT | PTFE, white |

Translation:

ATEX – Type Examination Certificate

Directive 2014 / 34 / EU

Equipment or Protective systems intended for use
in potentially explosive atmosphere

Number: TURCK Ex-10002M X **Issue no.:** 1

Equipment: Sensoren Typenreihe uprox® und uprox®+:
DBi/Bi..U-...../3D, Ni..U-...../3D
DBi/Bi..U-...../3GD, Ni..U-...../3GD

Manufacturer: Hans Turck GmbH & Co KG
Address: Witzlebenstr. 7 45472 Mülheim an der Ruhr

This equipment and any acceptable variation thereto is specified in the schedule to this certificate.

Hans Turck GmbH & Co. KG certifies that this product has been found to comply with the Essential Health and Safety Requirements of the Directive 2014 / 34 / EU by compliance with:

EN 60079-0:2012/A11:2013 EN 60079-15:2010 EN 60079-31:2014

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

Marking:



II 3 G Ex nA IIC T4 Gc
II 3 D Ex tc IIIC T110°C Dc

Hans Turck GmbH & Co. KG



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Mülheim an der Ruhr, date 4/20/2016

(i.A. W. Dick)
Representative

Translation:

Schedule to**Type Examination Certificate No. TURCK Ex-10002M X****Issue no.: 1**Description of device:

The use of inductive sensors is allowed in zone 2 resp. zone 22 depending on the marking. The sensors are suitable for contactless and wear-free detection of metallic objects and conversion into a digital output signal.

Ambient temperature range: -25°C ... + 70°C

Electrical data:

Operating voltage / voltage range: 10...30V DC
10...55V DC
10...65V DC

Output current: ≤ 150 mA or ≤ 200 mA

Internal test report no.:

Zone2+22_1_D_PB_~_Turck Ex-10002M X
Normengenerationswechsel_Turck Ex-10002M X
Zone2+22_A1_D_NGW_~_Turck Ex-10002MX

Special conditions for safe use:

- The device must be supplied from power supply units with secure separation according to IEC 60364 which ensure that the rated voltage of the equipment is not exceeded by more than 40% by transient disturbances.
- The sensor with Q80 or CP40 housing must be protected against static charge, e.g. by conductive fastening with connection to protective ground potential.
- Plug-in devices or connection cables may only be connected or disconnected in a de-energized state.
- Fix a warning in the near of connector permanently in suitable form with following text: DO NOT SEPARATE WHEN ENERGIZED.
- The device connectors have to be secured against accidentally disconnecting; use the included safety clip SC-M12 / 3GD.
- The IP protection degree of the connectors is given only in conjunction with matching O-rings.
- Do not open the terminal compartment of the sensor under voltage or make sure that no explosive atmosphere is present.
- Use only EX-approved cable gland (II 3 G; II 3 D).
- Protect the device against any mechanical damage.
- The device shall be protected against ultraviolet radiation.

Essential health and safety requirements:

- no additional ones



EU-Konformitätserklärung EU-Declaration of Conformity

Wir/We

MOLLET Füllstandtechnik GmbH

Industriepark RIO 103
D-74706 Osterburken
Tel. 06291 64400 Fax 06291 9846

erklären hiermit, dass die Geräte:

declare that the devices:

Schlauch- und Rohr-Kupplungen der Typenreihen:

Hose and pipe couplings of type series:

K... (MOLOScode, MOLOScconnect, MOLOSwitch, MOLOSlOCK)
aus Aluminum, Edelstahl oder Messing

K... (MOLOScode, MOLOScconnect, MOLOSwitch, MOLOSlOCK)
made of aluminum, stainless steel or brass

DN 32 bis DN 100

DN 32 to DN 100

auf die sich diese Erklärung bezieht, den folgenden Normen
oder normativen Dokumenten entsprechen:

to which this declaration relates is in accordance with
the following standards or other normative documents:

Richtlinie 2014/68/EU (Druckgeräte-Richtlinie)

Directive 2014/68/EU (Directive Pressure Equipment)

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinie.

The Essential Health and Safety Requirements are assured by compliance with the directive.

Einstufung:
Druckhaltendes Ausrüstungsteil

Categorization:
Pressure-maintaining components

Mediumeigenschaft nach Artikel 13:
Gruppe 1 - gefährlich

Fluid group acc. to art. 13:
Group 1 - dangerous

Mediumzustand:
gasförmig, flüssig oder staubhaltig, wenn pD >0,5 bar

Condition of fluid:
gaseous, liquid or dusty, if pD >0,5 bar

Angewendetes Konformitätsverfahren:
Modul A

Applied conformity assessment procedures:
Modul A

Diese Konformitätserklärung ist nur gültig in Verbindung mit den aktuellen Sicherheitshinweisen KE-SH- ..

The declaration of conformity is only valid in connection with our current safety instructions KE-SH- ..

Osterburken, 07. Januar 2019

Osterburken, January 7th 2019



Wolfgang Hageleit

Diese Erklärung darf nur unverändert
weiterverbreitet werden.

This declaration is only allowed to
hand out in unchanged form.