

- ATEX category II 3 G, Ex Zone 2
- ATEX category II 3 D, Ex Zone 22
- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4404
- Front cap made of liquid crystal polymer Vectra
- Factor 1 for all metals
- Magnetic field immune
- For temperatures of -40 °C to +100 °C
- High protection class IP69K, for harsh environments
- Special double-lip seal
- Protection against all common acid and alkaline cleaning agents
- Laser engraved label, permanently legible
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

<b>Type code</b>	BI15U-EM30WD-AP6X-H1141/3GD
Ident no.	1634855

<b>Rated operating distance Sn</b>	15 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
	≤ ± 20 %, ≤ -25 °C , ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-40...+100 °C
	in the explosion hazardous area see instruction leaflet

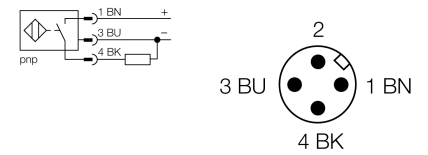
<b>Operating voltage</b>	10...30VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	□
Switching frequency	0.75 kHz

<b>Approval acc. to</b>	ATEX test certificate TURCK Ex-10002M X
Device designation	⊕ II 3 G Ex nA IIC T4 Gc/II 3 D Ex tlllc T110°C Dc

<b>Design</b>	threaded barrel, M30 x 1.5
Dimensions	62 mm
Housing material	Metal, V4A (1.4404)
Material active face	Plastic, LCP
Connector housing	plastic, PP
Admissible pressure on front cap	≤ 10 bar
Max. tightening torque housing nut	75 Nm
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C

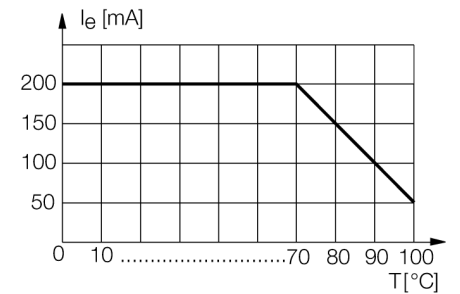
<b>Switching state</b>	• yellow
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**Wiring diagram**



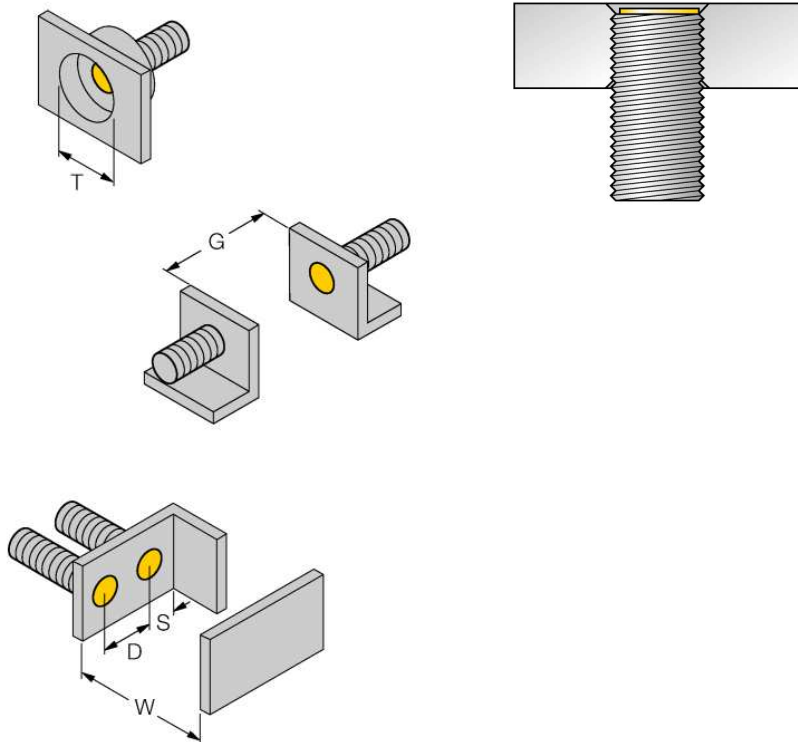
**Functional principle**

The inductive sensors for the food industry are absolutely watertight and resistant to cleaning agents and disinfectants owing to the LCP front cap and the stainless steel housing.



Distance D	60 mm
Distance W	45 mm
Distance T	90 mm
Distance S	45 mm
Distance G	90 mm

**Diameter of the active area B**                       $\varnothing$  30 mm



Flush and recessed mounting of all *uprox*®+ threaded barrel sensors. Safe operation is ensured if the sensor is screwed in by half a turn.

### Accessories

Type code	Ident no.	Description	Dimension drawing
MW-30	6945005	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	
PN-M30	6905308	Protective nut for M30 x 1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)	

### Wiring accessories

Type code	Ident no.	Description	Dimension drawing
RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	

## Operating manual

### Intended use

This device fulfills the directive 94/9/EC and is suited for use in explosion hazardous areas according to EN60079-0:2009, EN60079-15:2010 and EN60079-31:2009.

In order to ensure correct operation to the intended purpose it is required to observe the national regulations and directives.

### For use in explosion hazardous areas conform to classification

II 3 G and II 3 D (Group II, Category 3 G, electrical equipment for gaseous atmospheres and category 3 D, electrical equipment for dust atmospheres).

### Marking (see device or technical data sheet)

Ⓔ II 3 G Ex nA IIC T4 Gc acc. to EN 60079-0:2009 and EN 60079-15:2010 and Ⓔ II 3 D Ex t IIC T110°C Dc acc. to EN 60079-0:2009 and EN 60079-31:2009

### Local admissible ambient temperature

-25...+70 °C

### Installation / Commissioning

These devices may only be installed, connected and operated by trained and qualified staff. Qualified staff must have knowledge of protection classes, directives and regulations concerning electrical equipment designed for use in explosion hazardous areas.

Please verify that the classification and the marking on the device comply with the actual application conditions.

### Installation and mounting instructions

Avoid static charging of cables and plastic devices. Please only clean the device with a damp cloth. Do not install the device in a dust flow and avoid build-up of dust deposits on the device.

The devices must be protected against strong magnetic fields.

The pin configuration and the electrical specifications can be taken from the device marking or the technical data sheet.

In order to avoid contamination of the device, please remove possible blanking plugs of the cable glands or connectors only shortly before inserting the cable or opening the cable socket.

### Special conditions for safe operation

For devices with M12 connectors please use the supplied safety clip SC-M12/3GD.

Do not disconnect the plug-in connection or cable when energised.

Please attach a warning label permanently in an appropriate fashion in close proximity to the plug-in connection with the following inscription:

Nicht unter Spannung trennen / Do not separate when energized.

The device must be protected against any kind of mechanical damage and degrading UV-radiation.

The connectors are fully IP rated only in combination with the O-ring.

Load voltage and operating voltage of this equipment must be provided by power supplies featuring safe isolation (IEC 60 364/ UL 508), which ensures that the rated voltage (24 VDC +20% = 28.8 VDC) of the equipment is not exceeded by more than 40%.

### service / maintenance

Repairs are not possible. The approval expires if the device is repaired or modified by a person other than the manufacturer. The most important data from the approval are listed.