TB-EM30WD-H1147-EX
HF Read/Write Device –   For Explosion Hazardous Areas
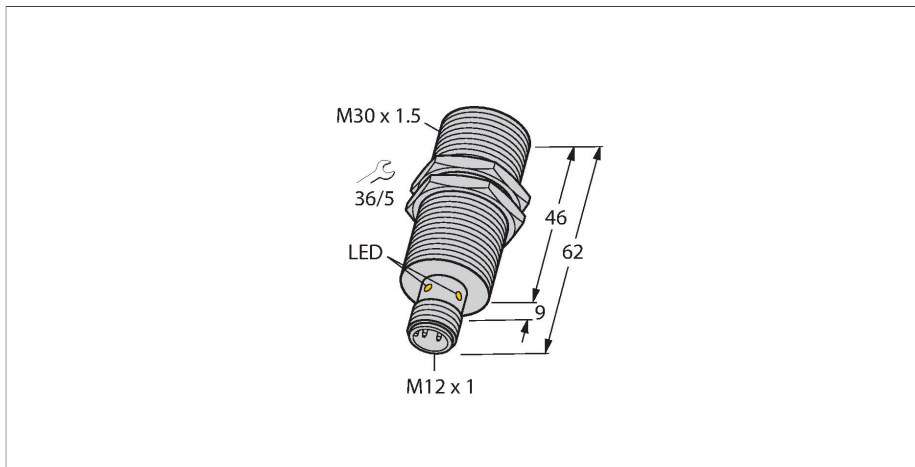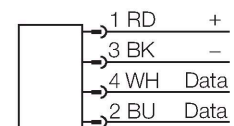

Technical data

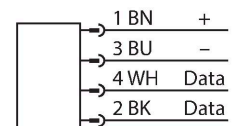|	
Type	TB-EM30WD-H1147-EX
ID	7030385
Remark to product	ATEX
Approvals	CE FCC UL IC FDA ATEX
Device marking	⟨Ex⟩ II 3G Ex nA II T4 Gc II 3D Ex t IIIB T135°C Dc
Approval acc. to	TURCK Ex-10005M X
Electrical data	
Operating voltage	10…30 VDC
DC rated operational current	≤ 80 mA
inrush current	700 mA For: 1 ms
Data transfer	Inductive coupling
Technology	HF RFID
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693 NFC Typ 5
Read/Write distance max.	45 mm
Output function	4-wire, Read/Write
Mechanical data	
Mounting conditions	Flush
Ambient temperature	-25…+70 °C
	For explosion hazardous areas see instruction leaflet
Design	Threaded barrel, M30 × 1.5
Dimensions	62 mm
Housing diameter	Ø 30 mm

Features

- M30 × 1.5 threaded tube
- Stainless steel 1.4404
- Front cap made of liquid crystal polymer
- High protection class IP69K for harsh environments
- Special double-lip seal
- Protection against all common acidic and alkaline cleaning agents
- Suitable for applications in the food industry
- Laser-engraved label, permanently legible
- ATEX category II 3 G, Ex zone 2
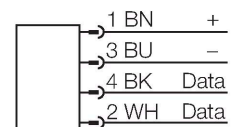- ATEX category II 3 D, Ex zone 22

…/S2503 Connectors

1 RD	+
3 BK	–
4 WH	Data
2 BU	Data

…/S2500 Connectors

1 BN	+
3 BU	–
4 WH	Data
2 BK	Data

…/S2501 Connectors

1 BN	+
3 BU	–
4 BK	Data
2 WH	Data

Technical data

Housing material	Stainless steel, 1.4404 (AISI 316L)
Active area material	Plastic, LCP
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 IP69K
Electrical connection	M12 × 1
MTTF	391 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Included in delivery	SC-M12/3GD
Packaging unit	1

Functional principle

The HF read/write devices operating at a frequency of 13.56 MHz form a transmission zone, the size of which (0…500 mm) varies depending on the combination of read/write device and tag used.
The read/write distances mentioned here only represent standard values measured under laboratory conditions, free from any influences caused by surrounding materials.
The read/write distances of the tags for mounting in metal TW-R**-M(MF) were determined in metal.
Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal). Testing of the application under real operating conditions is therefore essential, especially with on-the-fly reading and writing!

Mounting instructions/Description
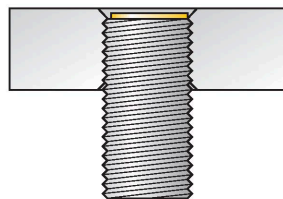
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Diameter active area B	Ø 30 mm
Width active area B	30 mm

flush mounting

Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads
	Ident - no.	Recommended (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	[mm]
∅ 20 / 2,8	**IN TAG 200 SLIX2** 100037960	15	27	20	10	90
∅ 20 / 2,8	**IN TAG 200 2K FRAM** 100002358	15	22	20	10	90
∅ 5,2 / ∅ 30 / 3	**IN TAG 300 SLIX2** 100002356	13	30	32	16	90
∅ 5,2 / ∅ 30 / 3	**IN TAG 300 2K FRAM** 100002359	15	27	32	16	90
∅ 5,2 / ∅ 50 / 3,3	**IN TAG 500 SLIX2** 100027728	20	43	46	23	90
∅ 5,2 / ∅ 50 / 3,3	**IN TAG 500 2K FRAM** 100002360	15	33	36	18	90

Accessories
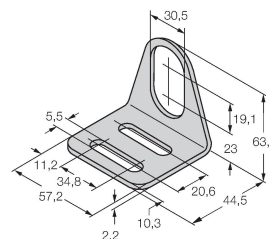
PN-M30	6905308
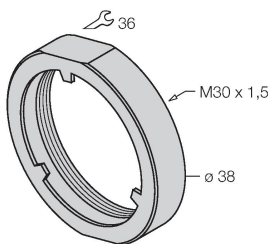
Protective nut for M30 x 1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)
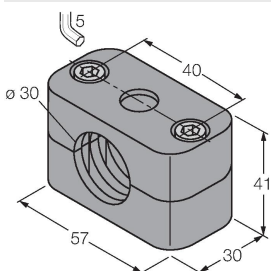
MW-30	6945005

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30	6901319

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene