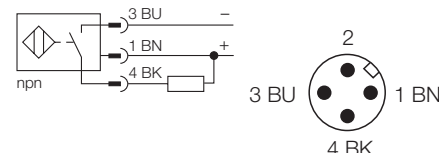


- threaded barrel, M12 x 1
- stainless steel, 1.4301
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10...30 VDC
- normally open npn output
- connector, M12 x 1

Type	Ni8U-EM12-AN6X-H1141
Ident-No.	1644350
Rated operating distance Sn	8 mm
Mounting condition	non-flush, partial embedding possible
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2 \%$
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 20 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$
Hysteresis	3... 15 %
Ambient temperature	-30... + 85 °C
Operating voltage	10... 30VDC
Residual ripple	$\leq 10 \% U_{ss}$
DC rated operational current	$\leq 200 \text{ mA}$
No-load current I_0	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Rated insulation voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes / cyclic
Voltage drop at I_e	$\leq 1.8 \text{ V}$
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, npn
Insulation class	□
Switching frequency	$\leq 2 \text{ kHz}$
Housing	threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	metal, AISI 304
Material active face	plastic, PBT
Tightening torque of housing nut	10 Nm
Connection	connectors, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP68
Display switch state	LED yellow

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. Due to a ferrite-less 3-coil system, uprox factor 1 sensors have distinct advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

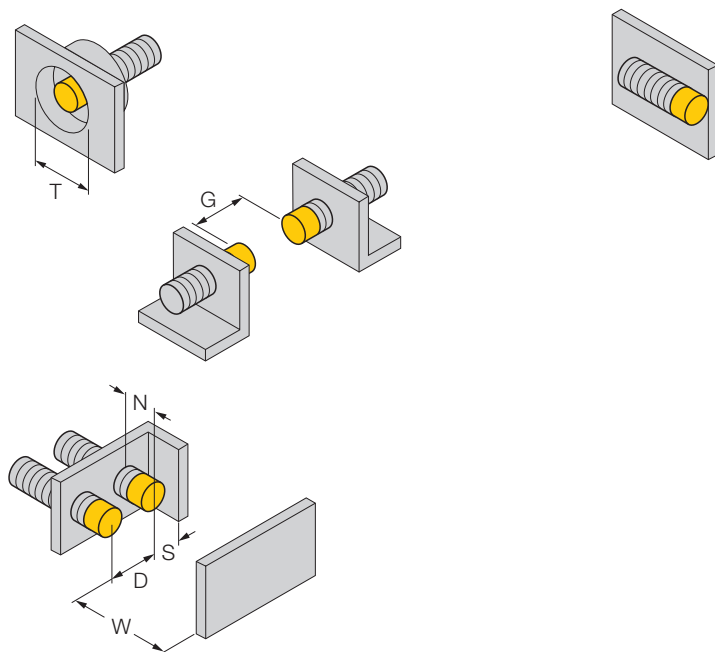
Mounting instructions

	minimum distances
Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance T	$4 \times B$
Distance S	$0,5 \times B$
Distance G	$6 \times S_n$
Distance N	$2 \times S_n$

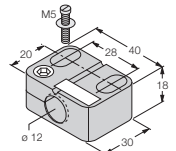
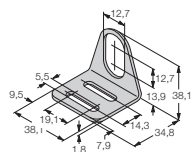
Diameter of the active area B

Ø 12 mm

1-side flush mounting possible:
1-side flush mounting: $S_r = 6 \text{ mm}$



Accessories

Type code	Ident-No.	Short text	Dimension drawing
BST-12B	6947212	fixing clamp with dead-stop; material: PA6	
MW-12	6945003	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	fixing clamp; material: polypropylene	