

- Threaded barrel, M12 x 1
- Stainless steel, 1.4301
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- Auto-compensation protects against pre-attenuation
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

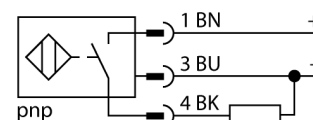
Type designation	NI8U-EM12-AP6X-H1141
Ident-No.	1644340
Ident-No (TUSA)	M1644340
Rated switching distance Sn	8 mm
Mounting conditions	non-flush, partially embeddable
Assured switching distance	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
	$\leq \pm 20\%$, $\leq -25^\circ\text{C}$ v $\geq +70^\circ\text{C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C

Operating voltage	10... 30VDC
Residual ripple	$\leq 10\% U_{in}$
DC rated operational current	$\leq 200\text{ mA}$
No-load current I_0	$\leq 20\text{ mA}$
Residual current	$\leq 0.1\text{ mA}$
Rated insulation voltage	$\leq 0.5\text{ kV}$
Short-circuit protection	yes/ cyclic
Voltage drop at I_0	$\leq 1.8\text{ V}$
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protective insulation	□
Switching frequency	2 kHz

Construction	Threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	Stainless steel, V2A (1.4301)
Active area material	Plastic, PBT
Max. tightening torque housing nut	10 Nm
Electrical connection	Flange connector, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C

Switching state	LED yellow
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Wiring Diagram

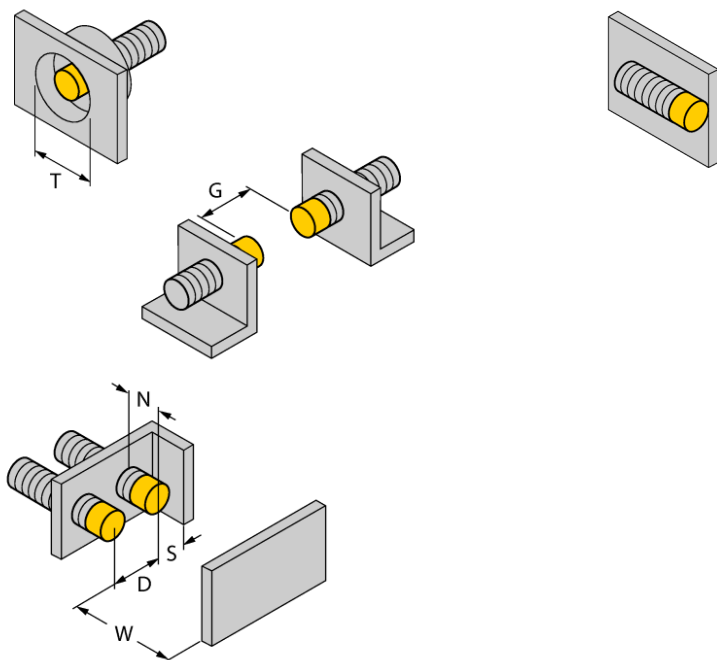


Functional principle

Inductive sensors detect metal objects contactless and wear-free. *uprox®* Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

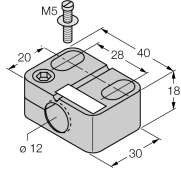
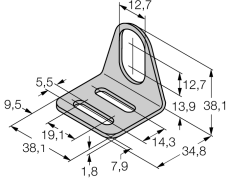
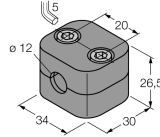
Distance D	3 x B
Distance W	3 x Sn
Distance T	45 mm
Distance S	0.5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B	Ø 12 mm
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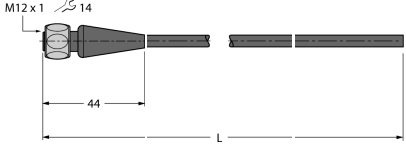


1-side flush mounting possible:
1-side flush mounting: $S_r = 6 \text{ mm}$

Accessories

Type code	Ident-No.	Description	
BST-12B	6947212	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	

Wiring accessories

Type code	Ident-No.	Description	
RKH4-2/TFE	6935482	Connection cable, M12 connector, female, straight, 3-pin, cable length: 2 m, sheath material: PVC, grey; temperature range: -25...+80 °C (in resting state), 0...+80 °C (in motion); other cable lengths and types available, see www.turck.com	
RKH4-2/TFG	6934384	Connection cable, M12 connector, female, straight, 3-pin, cable length: 2 m, sheath material: TPE, grey; temperature range: -40...+105 °C (in resting state), -25...+105 °C (in motion); other cable lengths and types available, see www.turck.com	