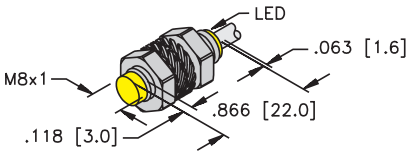
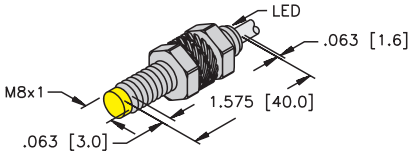
Inductive Sensors

Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
8 mm - Nonembeddable, Miniature Threaded Barrel, Potted-In Cable 	Ni 4-EG08K-AG41X	S4561010	*Short Barrel*	4	2-Wire DC
	Ni 3-EG08K-AN6X	S4669700	*Short Barrel*	3	3-Wire DC NPN
	Ni 3-EG08K-AP6X	S4669600	*Short Barrel*	3	3-Wire DC PNP
	Ni 3-EG08K-Y1	S1003700	*Short Barrel*	3	2-Wire DC NAMUR
8 mm - Nonembeddable, Miniature Threaded Barrel, Potted-In Cable 	Ni 4-EG08-AG41X	S4561000		4	2-Wire DC
	Ni 3-EG08-AN6X	S4602840		3	3-Wire DC NPN
	Ni 3-EG08-AN6X/S1589	S4602888	*weldguard*	3	
	Ni 3-EG08-AN7X	S4669759	*TTL Compatible*	3	
	Ni 4U-EG08-AN6X	S4600610	*Uprox*	4	
	Ni 3-EG08-AP6X	S4602740		3	3-Wire DC PNP
	Ni 3-EG08-AP6X/S1589	S4602789	*weldguard*	3	
	Ni 4U-EG08-AP6X	S4600600	*Uprox*	4	

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/ Cable Mat.	Wiring Diagram #
10-65 VDC	1000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
10-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	3
5-30 VDC	5000	Remote	-25 to +70	IP 67	SS	PA 12	TROG	N/A	N/A	2M/PVC	4
10-65 VDC	1000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	3000	≤150	-25 to +70	IP 67	SS	WG	TROG	N/A	YE	2M/PUR	2
	2000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	2000	≤150	-30 to +85	IP 68	SS	PA 12	TROG	N/A	YE	2M/PUR	2
10-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	3
	3000	≤150	-25 to +70	IP 67	SS	WG	TROG	N/A	YE	2M/PUR	3
	2000	≤150	-30 to +85	IP 68	SS	PA 12	TROG	N/A	YE	2M/PUR	3

Wiring Diagrams

Diagram 1

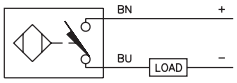


Diagram 2

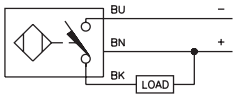


Diagram 3

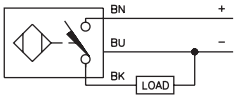
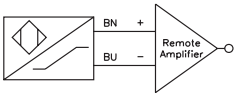
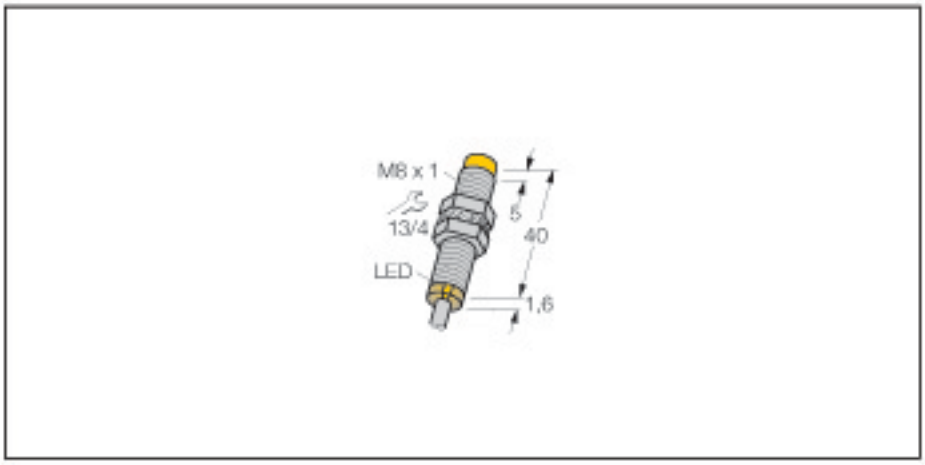


Diagram 4

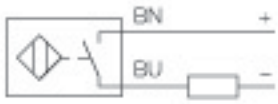


Inductive sensor
with extended switching distance
Ni4-EG08-AG41X



- **threaded barrel, M8 x 1**
- **stainless steel, 1.4404**
- **large detection range**
- **2-wire DC, 10...55 VDC**
- **polarized version**
- **normally open**
- **cable connection**

Wiring diagram



Type	Ni4-EG08-AG41X
Ident-No.	4561000
Rated operating distance Sn	4 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Temperature drift	≤ ± 10 %
Hysteresis	1... 15 %
Repeatability	≤ 2 %
Ambient temperature	-25...+ 70°C
Operating voltage	10... 55VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 100 mA
Residual current	≤ 0.6 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I_e	≤ 3.5V
Output function	2-wire, normally open, 2-wire
Smallest operating current I_m	≥ 3 mA
Switching frequency	≤ 1 kHz
Housing	threaded barrel, M8 x 1
Dimensions	41.6 x 8 mm
Housing material	metal, AISI 316L
Material active face	plastic, plastic, PA12-GF20
End cap	plastic, PP
Tightening torque of housing nut	10 Nm
Connection	cable
Cable quality	Ø 4, LifYY-11Y, PUR, 2 m
Cable cross section:	2 x 0.25mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Display switch state	LED yellow

Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.