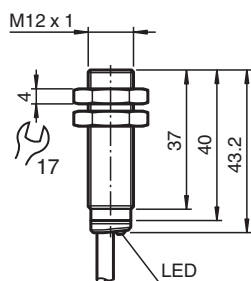


Inductive sensor NBB4-12GM40-E0

- 4 mm flush
- Increased operating distance
- Extended temperature range
-40 ... +85 °C
- Extended operating voltage range
- Flexible use with versatile mounting opportunities



Dimensions



Technical Data

General specifications

Switching function	Normally open (NO)	
Output type	NPN	
Rated operating distance	s_n	4 mm
Installation	flush	
Output polarity	DC	
Assured operating distance	s_a	0 ... 3.24 mm
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm	
Reduction factor r_{Al}	0.4	
Reduction factor r_{Cu}	0.35	
Reduction factor r_{304}	0.79	
Reduction factor r_{Brass}	0.49	
Output type	3-wire	

Nominal ratings

Operating voltage	U_B	6 ... 36 V
Switching frequency	f	0 ... 2550 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	U_d	≤ 1 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	max. 150 μ A
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 10 ms
Switching state indicator	LED, yellow	

Release date: 2025-06-24 Date of issue: 2025-06-24 Filename: 326161-0024_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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PEPPERL+FUCHS

Technical Data

Functional safety related parameters

MTTF _d		1607 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %

Conformity

PWIS conformity		VDMA 24364-C1/T100°C-W
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Compliance with standards and directives

Standard conformity		
Standards		EN IEC 60947-5-2

Approvals and certificates

Protection class		II
Rated insulation voltage	U _i	36 V
Rated impulse withstand voltage	U _{imp}	500 V
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤36 V
Marine approval		DNVGL TAA00003AK

Ambient conditions

Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type		cable
Housing material		brass , white bronze coated
Sensing face		PBT , green
Degree of protection		IP65 / IP66 / IP67 / IP68

Cable

Wire end ferrules		yes
Cable diameter		4.3 mm ± 0.15 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.34 mm ²
Length	L	2 m
Mass		83 g

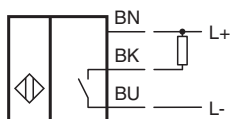
Dimensions

Length		43 mm
Diameter		12 mm
Mounting		with nuts, M12
Tightening torque		≤ 10 Nm

General information

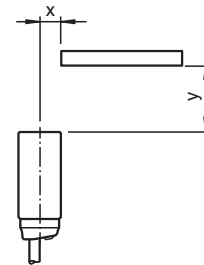
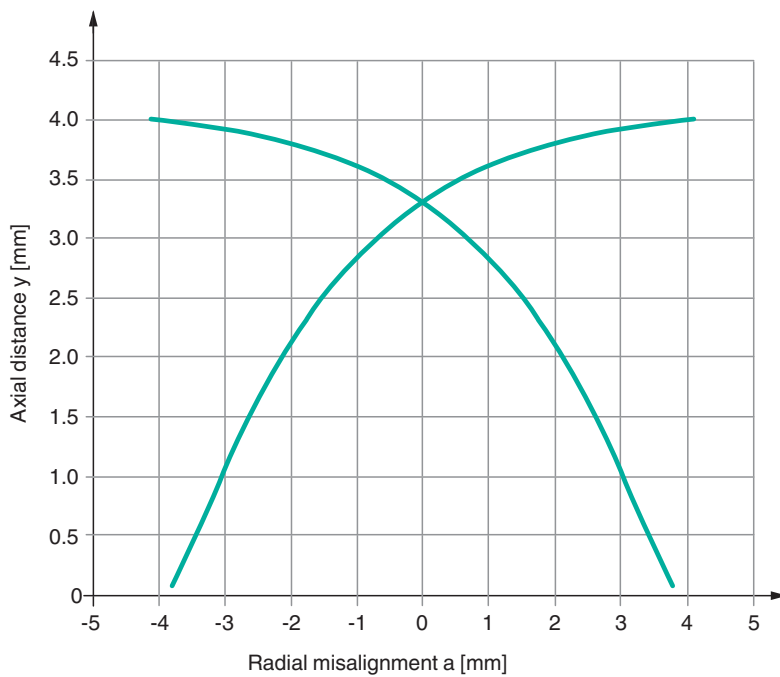
Scope of delivery		2 self locking nuts in scope of delivery
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Connection Assignment

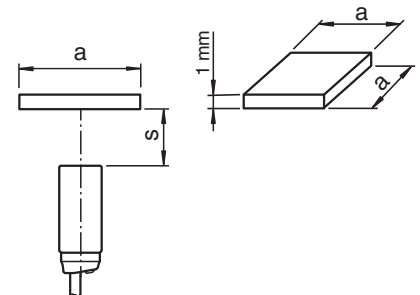
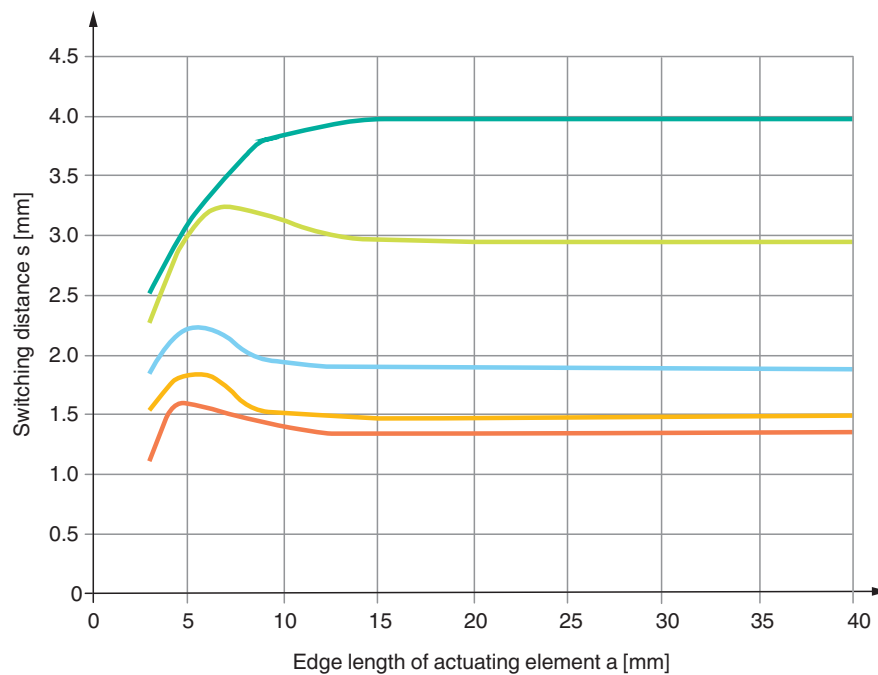


Characteristic Curve

Actuation by radial approach (standard target)



Switching distance depending on the actuating element



- Steel
- Stainless steel
- Brass
- Aluminum
- Copper