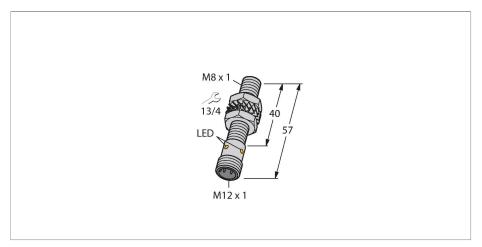


BI2-EG08-AG41X-H1341 Inductive Sensor – With Increased Switching Distance





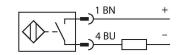
Technical data

| ID | Туре | BI2-EG08-AG41X-H1341 |
|---|--------------------------------|----------------------------|
| Rated switching distance 2 mm Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 115 % Electrical data Operating voltage Operating voltage 1055 VDC Residual ripple ≤ 10 % U _{ss} DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | • • | 4562001 |
| Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 115 % Electrical data Operating voltage Operating voltage 1055 VDC Residual ripple ≤ 10 % U₂s DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₂ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | General data | |
| Secured operating distance≤ $(0.81 \times Sn)$ mmCorrection factors\$137 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4Repeat accuracy≤ 2 % of full scaleTemperature drift≤ ±10 %Hysteresis115 %Electrical dataOperating voltage1055 VDCResidual ripple≤ 10 % UssDC rated operational current≤ 100 mAResidual current≤ 0.6 mAIsolation test voltage≤ 0.5 kVShort-circuit protectionyes / CyclicVoltage drop at I_0 ≤ 3.5 VWire breakage/Reverse polarity protectionPolarizedOutput functionNO contact, 2-wireSmallest operating current≥ 3 mASwitching frequency0.3 kHzMechanical dataDesignThreaded barrel, M8 x 1Dimensions57 mm | Rated switching distance | 2 mm |
| Correction factors | Mounting conditions | Flush |
| Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 115 % Electrical data Operating voltage Operating voltage 1055 VDC Residual ripple ≤ 10 % U₂s DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Dimensions 57 mm | Secured operating distance | ≤ (0.81 × Sn) mm |
| Temperature drift ≤±10 % Hysteresis 115 % Electrical data Operating voltage 1055 VDC Residual ripple ≤ 10 % U _{ss} DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _s ≤ 3.5 V Wire breakage/Reverse polarity protection Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Correction factors | |
| Hysteresis 115 % Electrical data Operating voltage 1055 VDC Residual ripple ≤ 10 % U _{ss} DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Repeat accuracy | ≤ 2 % of full scale |
| Electrical data Operating voltage 1055 VDC Residual ripple ≤ 10 % U₂s DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₂ ≤ 3.5 V Wire breakage/Reverse polarity protection Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Temperature drift | ≤ ±10 % |
| Operating voltage 1055 VDC Residual ripple ≤ 10 % U₅s DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | Hysteresis | 115 % |
| Residual ripple ≤ 10 % U _{ss} DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _o ≤ 3.5 V Wire breakage/Reverse polarity protection Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Electrical data | |
| DC rated operational current ≤ 100 mA Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | Operating voltage | 1055 VDC |
| Residual current ≤ 0.6 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | Residual ripple | ≤ 10 % U _{ss} |
| Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | DC rated operational current | ≤ 100 mA |
| Short-circuit protection yes / Cyclic Voltage drop at Ie ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | Residual current | ≤ 0.6 mA |
| Voltage drop at I₀ ≤ 3.5 V Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | Isolation test voltage | ≤ 0.5 kV |
| Wire breakage/Reverse polarity protection Polarized Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | Short-circuit protection | yes / Cyclic |
| tion Output function NO contact, 2-wire Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Voltage drop at I _e | ≤ 3.5 V |
| Smallest operating current ≥ 3 mA Switching frequency 0.3 kHz Mechanical data Threaded barrel, M8 x 1 Dimensions 57 mm | | Polarized |
| Switching frequency Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Output function | NO contact, 2-wire |
| Mechanical data Design Threaded barrel, M8 x 1 Dimensions 57 mm | Smallest operating current | ≥ 3 mA |
| Design Threaded barrel, M8 x 1 Dimensions 57 mm | Switching frequency | 0.3 kHz |
| Dimensions 57 mm | Mechanical data | |
| | Design | Threaded barrel, M8 x 1 |
| Housing material Stainless steel, 1.4427 SO | Dimensions | 57 mm |
| | Housing material | Stainless steel, 1.4427 SO |

Features

- Threaded barrel, M8 x 1
 Stainless steel, 1.4427 SO
 Large sensing range
 DC 2-wire, 10...55 VDC
 Polarized version
- NO contact
- ■M12 x 1 male connector

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

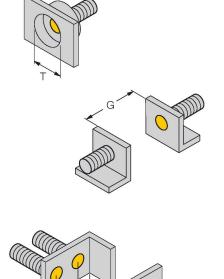


Technical data

| Active area material | Plastic, PA12-GF30 |
|---------------------------------------|--|
| Max. tightening torque of housing nut | 5 Nm |
| Electrical connection | Connector, M12 × 1 |
| Environmental conditions | |
| Ambient temperature | -25+70 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP67 |
| MTTF | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state | LED, Yellow |
| | |

Mounting instructions

Mounting instructions/Description



| Distance D | 2 x B |
|------------------------|---------|
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Diameter active area B | Ø 8 mm |

Accessories

QM-08

6945100

Quick-mount bracket with deadstop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quickmount brackets. BST-08B

6947210

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



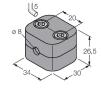
MW-08 6945008

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

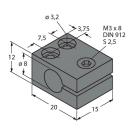
BSS-08

6901322

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



MBS80 69479



Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum

Accessories

Dimension drawing

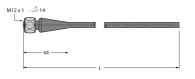
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Type RKH4-2/TFE

6935482

Connection cable, M12 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray; temperature

range: -25...+80 °C



RKH4-2/TFG

6934384

Connection cable, M12 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray; temperature

range: -40...+105 °C