

BT-X100-B — Inductive Proximity Switch M12, Shielded

Bertsch-Tech GmbH | Product Series: BT-X100
Article No.: BT-X100-B | EAN: 4012345678902

Overview

The BT-X100-B is a shielded (flush-mountable) inductive proximity switch in the M12 cylindrical form factor with a Normally Closed (NC) output configuration. The integrated ferrite core shielding enables direct flush mounting in metal machine frames without reduction in switching distance. Suitable for position detection, end-stop detection, and counting applications.

Key Features

- Cylindrical M12 housing, black anodised
 - **Shielded design** — flush mounting in metal permitted
 - Normally Closed (NC) switching output
 - PNP transistor output
 - Short-circuit proof and reverse polarity protected
 - LED status indicator (yellow)
 - Resistant to weld-field interference (EF008275 satisfied)
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Technical Specifications

Electrical

Parameter	Value
Supply voltage	DC
Rated control supply voltage DC	10 ... 30 V DC
Output type	PNP, NC (normally closed)
Max. output current (EF004035)	200 mA
Switching frequency	2000 Hz
Residual ripple on supply voltage	≤ 10 %

Sensing

Parameter	Value
EF003647 — Switching distance	4 mm (rated)
Assured operating distance	0 ... 3.24 mm
Mechanical mounting condition (EF004041)	Shielded (flush)
Standard target (Fe 360)	12 × 12 × 1 mm
Type of actuation	Inductive

Mechanical

Parameter	Value
Housing construction	Cylindrical threaded barrel
Diameter (EF007111)	M12 × 1 (12 mm)
Length of sensor (EF007334)	60 mm
Housing material	Brass, nickel-plated (black)
Coating housing (EF001601)	Nickel
Electric connection	4-pin M12 male connector
Degree of protection (IP)	IP67
Ambient temperature (operation)	-25 ... +70 °C

Difference to BT-X100-S

Property	BT-X100-S	BT-X100-B
Shielding	Unshielded	Shielded
Flush mounting	No	Yes
Switch function	NO	NC
Housing colour	Silver	Black

Wiring Diagram

Brown (Pin 1) – +V supply
Blue (Pin 3) – GND / 0 V
Black (Pin 4) – Switching output (NC, PNP)

Note: Output is HIGH (conducting) in rest state; switches LOW (non-conducting) when target is detected within switching distance.

Approvals

- CE (EN 60947-5-2)
 - RoHS 2011/65/EU compliant
 - UL listed (file E123456)
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Accessories

Order No.	Description
BT-CAB-M12-2M	Connection cable M12, 4-pin, 2 m, PVC
BT-NUT-M12	Lock nut M12, stainless steel
BT-MTG-M12-BKT	Mounting bracket, zinc-plated steel

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