



**Electric Automation**  
Automation specialists

Reference: BSA-IND

Selected parameters Others TYPE  
Inductive sensor HOUSING M18x57  
POWER SUPPLY Bus-powered MAIN  
CHARACTERISTICS Inductive flush-mount  
sensor with 5 mm sensing distance, 2m  
cable



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Transmitter with Inductive Prox. Switch Function  
BSA-IND

Stainless steel housing, cylindrical Diameter: M18

Short version

Flush mounting

Sensing distance: 5 mm Powered by smart-house Available with 2 m. cable

Freely programmable channel code by BGP-COD-BAT

GENERAL SPECIFICATIONS

Power ON delay Typ. 5 ms

Environment

Degree of protection IP 67

Pollution degree 3 (IEC 60664)

Operating temperature -25° to +70°C (-13° to +158°F) Storage temperature -30° to +80°C (-22° to +176°F)

Mechanical resistance

Tightening torque 2.6 Nm

Material

Housing & Body Stainless steel (1.4301) Back Black polyester

Front Grey thermoplastic polyester

Cable type PVC, grey, oil proof,

3 x 0.3 mm<sup>2</sup>

Cable length 2 m

Weight 25 g

## INPUT SPECIFICATIONS

### REDUCTION FACTORS

Inputs Inductive proximity switch

Nominal sensing distance  $S_n$  5 mm

Effective sensing range  $S_r$   $0.9 \times S_n \leq S_r \leq 1.1 \times S_n$  Usable operating range  $S_u$   $0.9 \times S_r \leq S_u \leq 1.1 \times S_r$  Assured operating range  $S_a$   $0 < S_a < 0.81 \times S_n$  Hysteresis  $H$  Typ. 7%

Response time  $\leq 1$  smart-house pulse train

The nominal sensing distance is reduced by the use of metal and alloys other than ST 37. Most important reduction factors for the inductive proximity switch are:

Stainless steel  $0.6 \times S_n$  Brass  $0.4 \times S_n$  Aluminium  $0.3 \times S_n$  Copper  $0.2 \times S_n$

### SUPPLY SPECIFICATIONS

Power supply Supplied by smart-house

Reverse polarity protection Yes

TYPE SELECTION Housing Connection Rated operating Ordering no. diameter dist. ( $S_n$ )  
1)

Rated operational current Typ. 900  $\mu$ A

M18 Cable 5 mm

1)

BSA-IND

For flush mounting in metal

### MODE OF OPERATION

#### WIRING DIAGRAM

The BSA-IND inductive proximity switch with built-in smart-house transmitter operates in the same way as the commonly available products of a similar kind. Once a metallic object is brought within sensing distance of the inductive proximity switch the respective channel will be activated.

The inductive proximity switch may be coded to >Brown

D + D -

Blue

Black

Specifications are subject to change without notice (11.09.2007) - A product of the CARLO GAVAZZI Group