

Proximity Sensors Inductive

Short body, Stainless Steel Housing

Types IA, M5 w/short-circuit protection

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- Miniature stainless steel housing M5
- Short body
- Sensing distance: 1.0 mm (0.8 mm for IA05BSF10NCP only)
- Power supply: 10 to 30 VDC
- Output: Transistor NPN/PNP, normally open or normally closed
- Protection: Reverse polarity and short-circuit protection
- LED-indication for output ON
- 2 m PVC cable or M8 plug

Product Description

Miniature inductive proximity sensor with reduced body length. Output configuration for NPN/PNP with both NO and NC types as standard. M5 stainless steel housing. Connection with 2 m PVC cable or M8 plug.

Ordering Key

IA 05 BSF 10 NO M5 P

| | |
|----------------------|-------|
| Ind. prox. switch | _____ |
| Housing style | _____ |
| Housing size | _____ |
| Housing material | _____ |
| Housing length | _____ |
| Detection principle | _____ |
| Sensing distance | _____ |
| Output type | _____ |
| Output configuration | _____ |
| Connection | _____ |
| Protected | _____ |

Type Selection

| Rated operating dist. (S _n) | Conn. type | Ordering no. Transistor NPN Normally open | Ordering no. Transistor NPN Normally closed | Ordering no. Transistor PNP Normally open | Ordering no. Transistor PNP Normally closed |
|---|------------|---|---|---|---|
| 0.8 mm ¹⁾ | Cable | | IA 05 BSF 10 NC P | | |
| 1.0 mm ¹⁾ | Cable | IA 05 BSF 10 NO P | | IA 05 BSF 10 PO P | IA 05 BSF 10 PC P |
| 1.0 mm ¹⁾ | Plug | IA 05 BSF 10 NO M5 P | IA 05 BSF 10 NC M5 P | IA 05 BSF 10 PO M5 P | IA 05 BSF 10 PC M5 P |

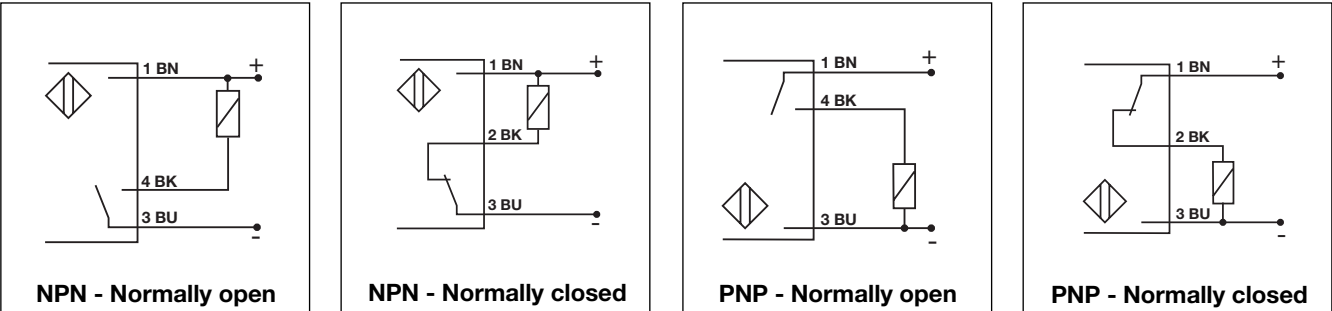
¹⁾ For flush mounting in metal

Specifications

| | | | |
|---|--|----------------------|---|
| Rated operational volt. (U _B) | 10 to 30 VDC (ripple included) | Ambient temperature | |
| Ripple | ≤ 10% | Operating | -25° to +70°C (-13° to +158°F) |
| Rated operational current (I _B) | | Storage | -30° to +75°C (-22° to +167°F) |
| Continuous | ≤ 200 mA | Degree of protection | IP 67 (Nema 1, 3, 4, 6, 13) |
| No-load supply current (I _o) | ≤ 10 mA (ON) | Housing material | Stainless steel, AISI 303 |
| Voltage drop (U _d) | < 1.0 V (@ I _{max}) | CE-marking | Yes |
| Protection | Reverse polarity and short-circuit protection | Connection | |
| Frequency of operating cycles (f) | 2000 Hz | Cable | 2 m, PVC, oil proof AWG 26/ 3 x 0.15 mm ² |
| Indication for output ON | LED, yellow | Plug | M8, CONH5A-xxx Serie |
| Effective operating dist. (S _r) | 0.9 x S _n ≤ S _r ≤ 1.1 x S _n | | |
| Usable operating dist. (S _u) | 0.85 x S _r ≤ S _u ≤ 1.15 x S _r | | |



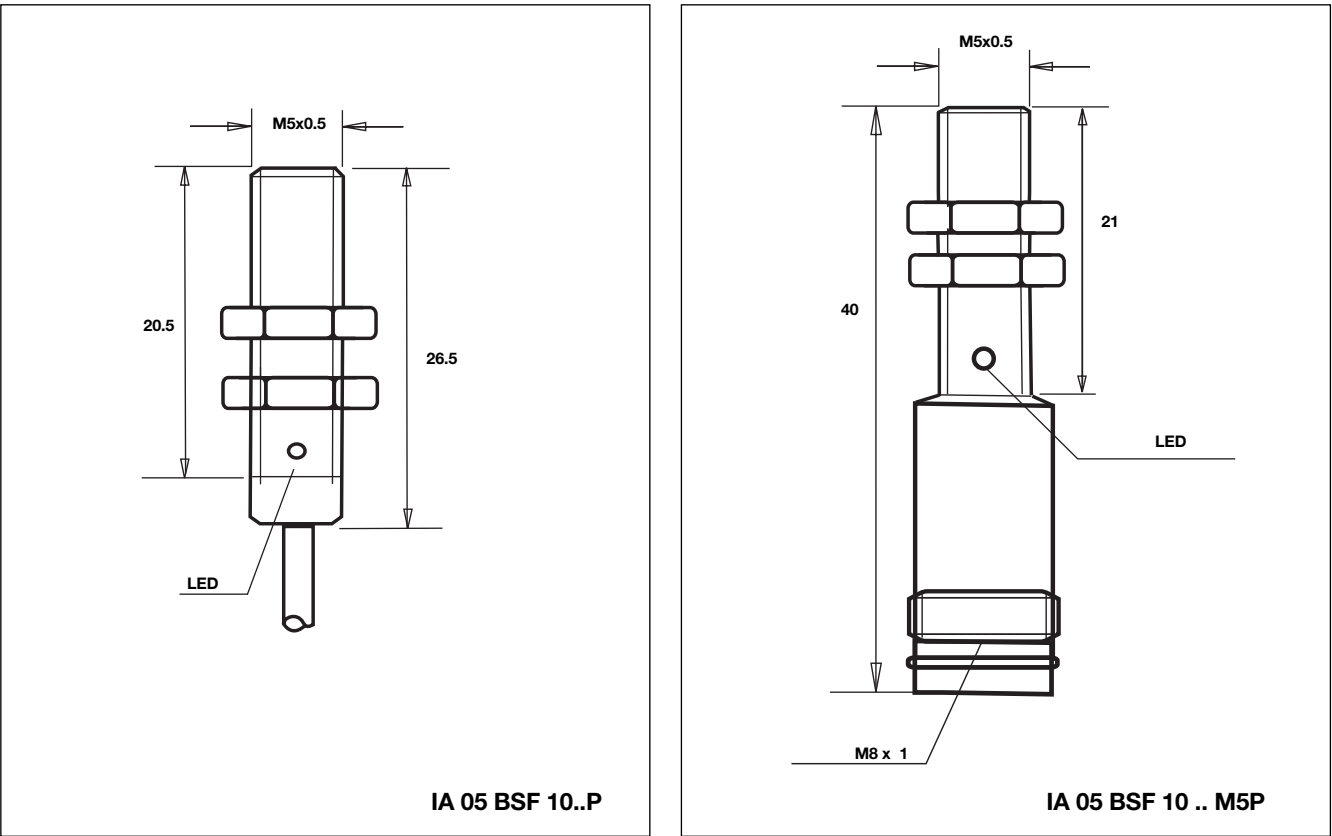
Wiring Diagrams



Installation Hints

| | | | |
|---|---|---|--|
| <p>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</p> | <p>Relief of cable strain</p> <p>Incorrect</p> <p>Correct</p> <p>The cable should not be pulled</p> | <p>Protection of the sensing face</p> <p>A proximity switch should not serve as mechanical stop</p> | <p>Switch mounted on mobile carrier</p> <p>Any repetitive flexing of the cable should be avoided</p> |
|---|---|---|--|

Dimensions



Mouser Electronics

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