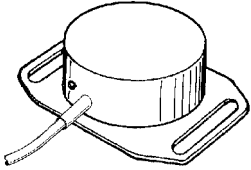
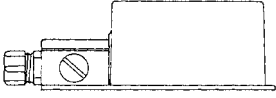
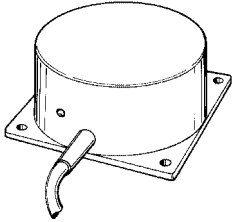
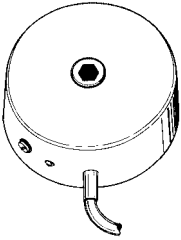
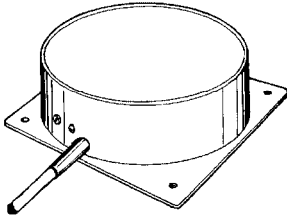
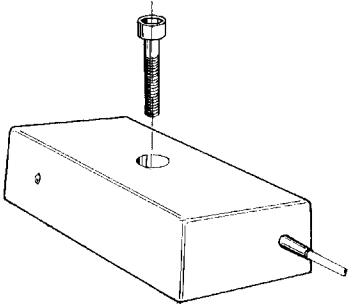


Inductive Proximity Switches

2 or 4 wire connection - all current or PNP - cable or plug connection - short-circuit proof

| | | | |
|--------------------------------|---|--|---|
| Type: | N \varnothing 100 mm | NR \varnothing 100 mm | N \varnothing 100 mm |
| |  |  |  |
| Sensing distance: | 60 mm | 60 mm | 70 mm |
| Adjustable: ¹⁾ | yes | yes | yes |
| Type of installation: | non-flush mount | non-flush mount | non-flush mount |
| Housing material: | Plastic | Plastic | Plastic |
| Dimensions: | 108 x 150 x 58 mm | 160 x 150 x 58 mm | 110 x 110 x 43 mm |
| Fastening: | 8,4x63 mm, borehole dimension:130 mm | 8,4x63mm, borehole dimension:130 mm | 4x \varnothing 5,5mm, borehole dimension: 92 mm |
| Protection type: ²⁾ | IP 67 | IP 67 | IP 67 |
| Switching frequency: | 100 Hz (DC) / 50 Hz (AC) | 100 Hz (DC) / 50 Hz (AC) | 80 Hz (DC) / 20 Hz (AC) |
| Type AC/DC 2-wire: | IKN 060.05 G | IKNR 060.05 G | IKN 070.05 G |
| Type DC 3/4-wire: | IKN 060.38 G S4 | IKNR 060.38 G | IKN 070.38 G S4 |
| Note: | also as rolling-mill type available | | |

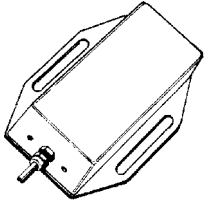
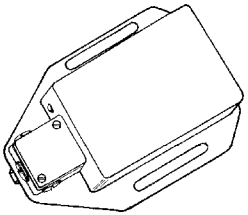
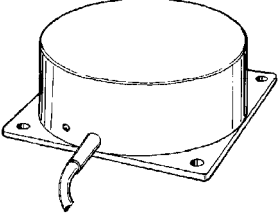
| | | | |
|--------------------------------|---|--|---|
| Type: | M \varnothing 95 mm | NB \varnothing 130 mm | Q 98 x 178 mm |
| |  |  |  |
| Sensing distance: | 70 mm | 80 mm | 90 mm |
| Adjustable: ¹⁾ | yes | yes | yes |
| Type of installation: | non-flush mount | non-flush mount | non-flush mount |
| Housing material: | Plastic | Plastic | Plastic |
| Dimensions: | \varnothing 95 mm x 40 mm | 140 x 140 x 35 mm | 98 x 178 x 56 mm |
| Fastening: | Nylonscrew M12 x 70 | 4x \varnothing 7mm, borehole dimension:114 mm | Nylonscrew M16 x 90 |
| Protection type: ²⁾ | IP 67 | IP 67 | IP 67 |
| Switching frequency: | 80 Hz (DC) / 25 Hz (AC) | 50 Hz (DC) / 20 Hz (AC) | 50 Hz (DC) / 15 Hz (AC) |
| Type AC/DC 2-wire: | IKM 070.05 G | IKNB 080.05 G | IKQ 090.05 G |
| Type DC 3/4-wire: | IKM 070.38 G S4 | IKNB 080.38 G S4 | IKQ 090.38 G S4 |
| Note: | | | |

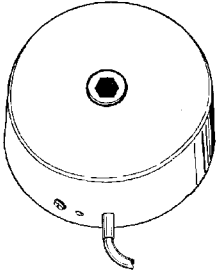
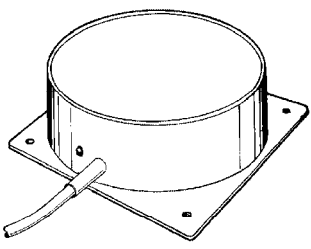
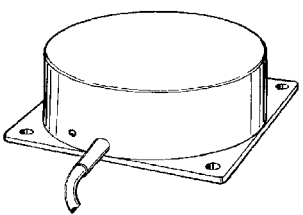
The advantages of the AC/DC 2-wire connection are the wide and universal voltage range and the wire saving installation. The residual current of 1,7 mA due to the load and the voltage drop of 9V over the switch in case of low mains voltage are to be observed.

Apart from the wide voltage range the DC technology offers the possibility to apply the normally-open and normally-closed outputs separately or linked

¹⁾ In the factory on assembly the proximity switches are adjusted with a square measuring plate (FE 360, edge length = 3 times the nominal sensing distance) to a steel plate of identical size. If the real switching distance measured deviates from the nominal switching distance by more than 10 %, new adjustment is recommended. Thereafter the protection screw for the adjusting device is to be screwed in again.

Sensing distance 60 - 120 mm

| Type: | Q 150 x 150 mm | QR 150 x 170 mm | OH Ø 163 mm |
|--------------------------------|---|--|---|
| |  |  |  |
| Sensing distance: | 100 mm | 100 mm | 100 mm |
| Adjustable: ¹⁾ | yes | yes | yes |
| Type of installation: | non-flush mount | non-flush mount | non-flush mount |
| Housing material: | Plastic | Plastic | Plastic |
| Dimensions: | 150 x 150 x 56 mm | 150 x 170 x 56 mm | 170 x 170 x 68 mm |
| Fastening: | 8,4x63 mm, borehole dimension:130 mm | 8,4x63 mm, borehole dimension:130 mm | 4x Ø9 mm, borehole dimension: 150 mm |
| Protection type: ²⁾ | IP 67 | IP 67 | IP 67 |
| Switching frequency: | 50 Hz (DC) / 30 Hz (AC) | 50 Hz (DC) / 30 Hz (AC) | 50 Hz (DC) / 15 Hz (AC) |
| Type AC/DC 2-wire: | IKQ 100.05 G | IKQR 100.05 MG | IKOH 100 05 G |
| Type DC 3/4-wire: | IKQ 100.38 G S4 | IKQR 100.38 MG | IKOH 100.38 G S4 |
| Note: | also as rolling-mill type available | | |

| Type: | O Ø 163 mm | E Ø 210 mm Aluminium housing | OA Ø 200 mm |
|--------------------------------|---|--|---|
| |  |  |  |
| Sensing distance: | 100 mm | 100 mm | 120 mm |
| Adjustable: ¹⁾ | yes | no | yes |
| Type of installation: | non-flush mount | flush mount | non-flush mount |
| Housing material: | Plastic | Aluminium | Plastic |
| Dimensions: | Ø 163 mm x 64 mm | 210 x 210 x 75 mm | 210 x 210 x 60 mm |
| Fastening: | Nylonscrew M16 x 90 | 4x Ø9 mm, borehole dimension: 170 mm | 4x Ø9 mm, borehole dimension: 170 mm |
| Protection type: ²⁾ | IP 67 | IP 67 | IP 67 |
| Switching frequency: | 50 Hz (DC) / 15 Hz (AC) | 50 Hz (DC) / 15 Hz (AC) | 50 Hz (DC) / 15 Hz (AC) |
| Type AC/DC 2-wire: | IKO 100.05 G | IKE 100.05 G | IKOA 120.05 G |
| Type DC 3/4-wire: | IKO 100.38 G S4 | IKE 100.38 G | IKOA 120.38 G S4 |
| Note: | | steel armoured Silicone cable | |

Deviating types available acc. to works standard of Mannesmannröhren Werke AG, Thyssen, Hoesch, HKM and others. Temperature ranges from -40 °C to +100 °C and other customer-specific specifications.

Connection technology

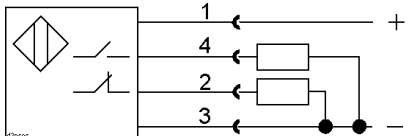
Type DC 3/4 wire (.. .38 G S4): built-in unit plug M 12x1; type AC/DC 2-wire (.. .05 G): 2m cable connection

²⁾ Protection type IP 67 is complied with when the appliance plug is perfectly connected with the appertaining socket and the protection screw for the adjusting device is screwed in.

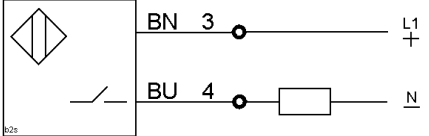
Itemgroup 230

Inductive proximity switches are sensors which react upon presence or absence of metallic objects within their range of supervision. An alternating field of high frequency leaves at the active surface and is influenced and evaluated dependent on distance and properties of metallic objects. The types of itemgroup 230 comprise executions of a sensing distance of 60 to 120 mm. By means of 2 electric variations only with universal voltage ranges all customary controlling tasks can be managed. The pulsing Proxitron protection against short-circuit offers safety against destruction of 2-wire units for AC and DC for mains from 24 V to 240 V. 3-wire designs are protected against short-circuit in case of mains from 12 V to 48 V. Depending on the degree of overload the electronic protection against short-circuit automatically returns to its normal mode of operation after max. 30 s. During this time the blinking LED indicates the trouble. Apart from the universal types already many designs acc. to customer's specification are in operation and are listed in works standards. Their fields of application are to be found in all ranges of industrial automation. If required we shall be glad to place detailed individual data sheets at your disposal.

DC-type

| | |
|--------------------------|--|
| Output | PNP n. o. and n. c. |
| Supply voltage | 10 - 55 V DC |
| Ripple voltage | max. 15 % |
| Load current max. | 0 - 400 mA |
| Short-time load current | 2 A / 10 ms; 0,8 A / 100 ms |
| Short circuit protection | yes, pulsing |
| Residual current | < 10 mA |
| Voltage drop | 1,5 V / 50 mA |
| Switching hysteresis | 1 - 15 % |
| Ambient temperature | -25 to +70 °C |
| Connection | Plug S4, M12 x 1 |
| Diagram of connections | DC 4-wire PNP n.o. + n.c.  |

AC/DC-type

| | |
|--------------------------|--|
| Output | normally open |
| Supply voltage | 20 - 260 V AC/DC |
| Power frequency | 40 - 440 Hz |
| Ripple voltage | max 15 % (DC) |
| Load current max. | 5 - 400 mA |
| Short-time load current | 2 A / 10 ms; 0,8 A / 100 ms |
| Short circuit protection | yes, pulsing |
| Residual current | 1,7 mA / 260 V AC; 1,0 mA / 24 V DC |
| Voltage drop | 9 V |
| Switching hysteresis | 1 - 15 % |
| Ambient temperature | -25 to +70 °C |
| Connection | 2 m cable |
| Diagram of connections | AC/DC 2-wire norm. open  |

Range of products



Since 1979 Proxitron has been developing and manufacturing sensors. Sturdy construction and continuous quality control guarantee maximum reliability.

www.proxitron.de

- Itemgroup Inductive proximity switches**
- WG 210 Sensing distance < 20 mm
 - WG 220 Sensing distance 20-60 mm
 - WG 230 Sensing distance 60-120 mm
 - WG 240 Sensor Strips
 - WG 241 Surface Sensors
 - WG 250 Ring-sensors
 - WG 260 Inductive analog sensors and evaluation electronics

- Itemgroup Other sensors**
- WG 100 Capacitive Sensors
 - WG 510 Piros Light barriers
 - WG 610 Piros Infrared-sensors
 - WG 620 Piros for fibre optics
 - WG 630 Piros Infrared pyrometers
 - WG 800 Flow-sensors for air
 - WG 830 Flow-sensors