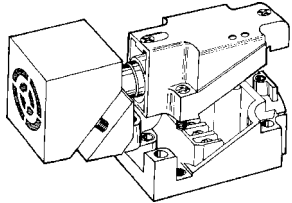
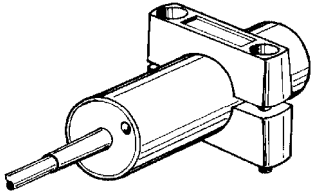
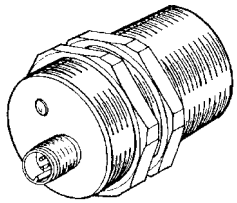
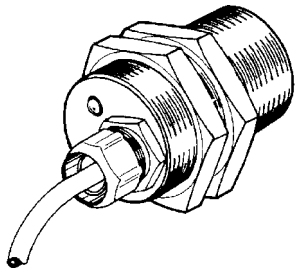
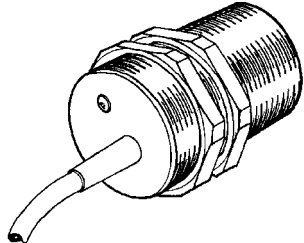
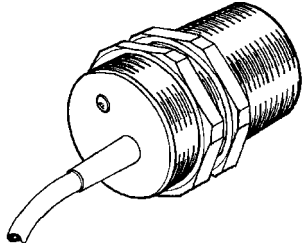


## Inductive Proximity Switches

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

<b>Type:</b>	<b>Q UniProx</b>	<b>H Ø 34 mm</b>	<b>Z PG 36</b>
			
<b>Sensing distance:</b>	<b>20 mm</b>	<b>20 mm</b>	<b>20 mm</b>
Adjustable:	no	no	no
Type of installation:	non-flush mount	non-flush mount	flush mount
Housing material:	Plastic	Plastic	Brass, nickel plated
Dimensions:	40 x 40 x 120 mm	Ø 34 x 80 mm	PG36 x 70 mm
Fastening:	4 x Ø5,3 mm, 60 x 30 mm	incl. Fixing clamp	Ø 47 mm, incl. 2 nuts
Protection type:	IP 67	IP 67	IP 67
Switching frequency:	250 Hz ( DC ) / 50 Hz ( AC )	250 Hz ( DC ) / 50 Hz ( AC )	100 Hz ( DC ) / 50 Hz ( AC )
Type AC/DC 2-wire:	IKQ 020.05 G *	IKH 020.05 G	IKZ 471.05 G
Type DC 3/4-wire:	IKQ 020.38 G S4	IKH 020.38 G S4	IKZ 471.38 G S4
Note:	changeable to 5 positions *programmeable as normally-closed		

<b>Type:</b>	<b>Z PG 36</b>	<b>Z PG 36</b>	<b>Z PG 36</b>
			
<b>Sensing distance:</b>	<b>20 mm</b>	<b>20 mm</b>	<b>25 mm</b>
Adjustable:	no	no	no
Type of installation:	flush mount	flush mount	quasi flush mount
Housing material:	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
Dimensions:	PG36 x 70 mm	PG36 x 70 mm	PG36 x 70 mm
Fastening:	Ø 47 mm, incl. 2 nuts	Ø 47 mm, incl. 2 nuts	Ø 47 mm, incl. 2 nuts
Protection type:	IP 67	IP 67	IP 67
Switching frequency:	100 Hz ( DC ) / 50 Hz ( AC )	50 Hz	100 Hz ( DC ) / 50 Hz ( AC )
Type AC/DC 2-wire:	IKZ 472.05 MG	IKZ 474.05 G	IKZ 475.05 G
Type DC 3/4-wire:	IKZ 472.38 MG		IKZ 475.38 G S4
Note:	Hose screwing 5/16" Mannesmann works standard	with protective earth	increased sensing distance

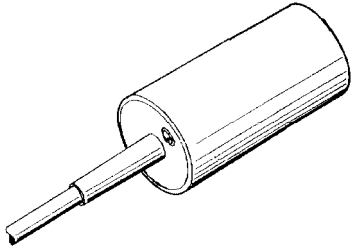
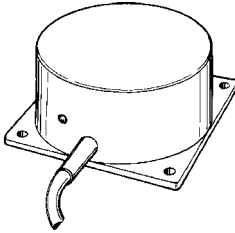
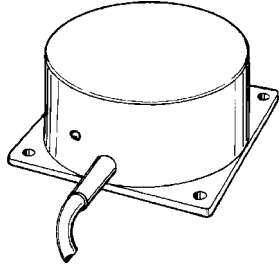
The advantages of the AC/DC 2-wire connection are the wide and universal voltage range and the wire saving installation. The residual current of 1,7 mA due to the load and the voltage drop of 9V over the switch in case of low mains voltage are to be observed.

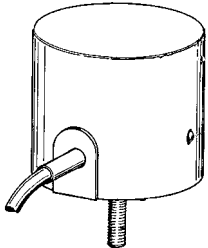
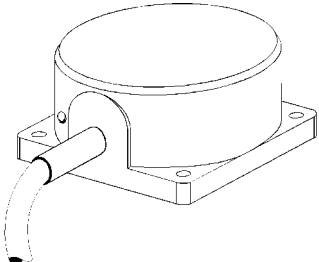
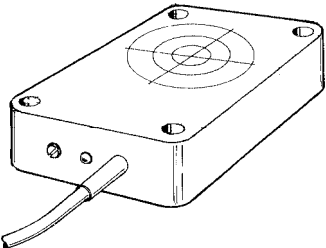
Apart from the wide voltage range the DC technology offers the possibility to apply the normally-open and normally-closed outputs separately or linked

**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

## Sensing distance 20 - 60 mm

Type:	H $\varnothing$ 54 mm	G $\varnothing$ 80 mm Aluminium housing	D $\varnothing$ 100 mm Aluminium housing
			
<b>Sensing distance:</b>	<b>35 mm</b>	<b>40 mm</b>	<b>45 mm</b>
Adjustable:	no	no	no
Type of installation:	non-flush mount	flush mount	flush mount
Housing material:	Plastic	Aluminium	Aluminium
Dimensions:	$\varnothing$ 54 x 70 mm	80 x 80 x 40 mm	110 x 110 x 55 mm
Fastening:	fixing clamp not incl.	4 x $\varnothing$ 5,5 mm, 65 x 65 mm	4 x $\varnothing$ 5,5 mm, 90 x 90 mm
Protection type:	IP 67	IP 67	IP 67
Switching frequency:	100 Hz ( DC ) / 50 Hz ( AC )	100 Hz ( DC ) / 25 Hz ( AC )	100 Hz ( DC ) / 15 Hz ( AC )
Type AC/DC 2-wire:	IKH 035.05 G	IKG 040.05 G	IKD 045.05 G
Type DC 3/4-wire:	IKH 035.38 G S4	IKG 040.38 G S4	IKD 045.38 G S4
Note:	Accessories: fixing clamp, Art.-Nr. 9814A available acc. to MRW works standard	WG 250 also as rolling-mill type	WG 250 also as rolling-mill type

Type:	J $\varnothing$ 80 mm	K $\varnothing$ 80 mm	RD 80 x 120 mm
			
<b>Sensing distance:</b>	<b>50 mm</b>	<b>50 mm / 60 mm</b>	<b>50 mm</b>
Adjustable:	no	no / yes	yes
Type of installation:	non-flush mount	non-flush mount	non-flush mount
Housing material:	Plastic	Plastic	Plastic
Dimensions:	$\varnothing$ 80 x 67 mm	80 x 80 x 40 mm	80 x 120 x 30
Fastening:	Centralscrew (VA) M8 x 32	4 x $\varnothing$ 5,3 mm, 65 x 65 mm	4 x $\varnothing$ 5,5 mm, 100 x 60 mm
Protection type:	IP 67	IP 67	IP 67
Switching frequency:	100 Hz ( DC ) / 25 Hz ( AC )	100 Hz ( DC ) / 25 Hz ( AC )	100 Hz ( DC ) / 25 Hz ( AC )
Type AC/DC 2-wire:	IKJ 050.05 G	IKK 050.05 G	IKRD 050.05 G
Type DC 3/4-wire:	IKJ 050.38 G S4	IKK 050.38 G S4	IKRD 050.38 G S4
Note:	also for motor-car works standard		flat design, therefore potentiometer for adjustment after installation

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.

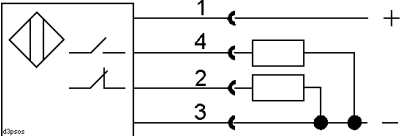
### Connection technology

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

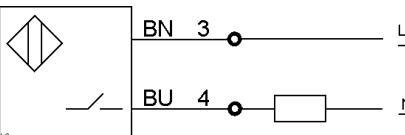
**Itemgroup 220**

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 220 comprise executions of a sensing distance of 20 to 60 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](http://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

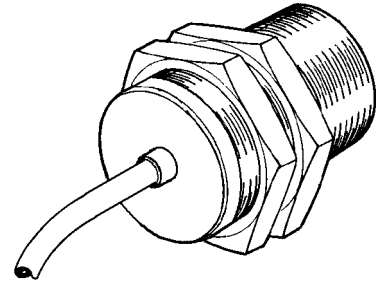
**Itemgroup  
Other sensors**

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

upto + 175 °C

Short circuit protected proximity switch with M50 metal-housing for lower operating distances.

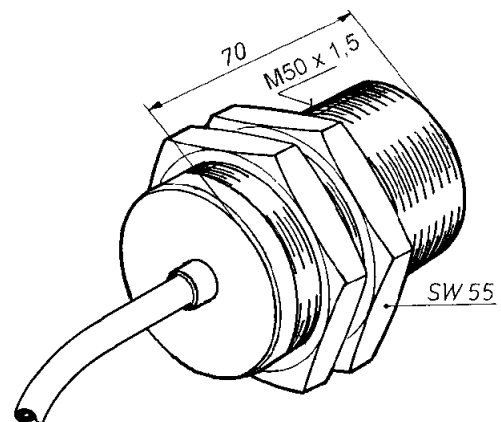
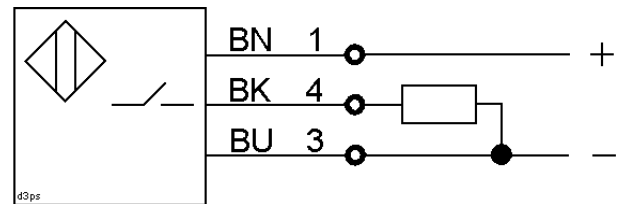
The Sensor is suitable for higher ambient temperature by the increased temperature range.



## Technical Data

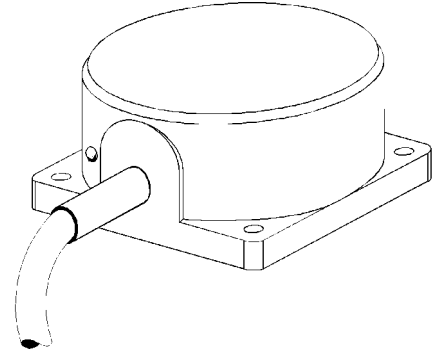
<b>Type</b>	<b>IKZ 506.23 GH</b>
Art.-No.	2471A
Rated operating distance (Sn)	20 mm
Operating distance	20 mm +/-20%
Output	PNP n. o.
Target steel St37, 1 mm thick	60 x 60 mm
Location at metal	free zone 10 mm necessary
Supply voltage (UB)	10 - 30 V DC
Ripple voltage	< 15 %
Load current max.	0 - 150 mA
Short circuit protection	yes
Voltage drop (Ud)	2 V
Current consumption	max. 8 mA / 24 V
Operating frequency (f)	100 Hz
Switching hysteresis (H)	3 - 20 %
Ambient temperature	-25 ... +175 °C
Protection class	IP 67
Connection	2 m silicone cable
Function display	no
Housing material	stainless steel 1.4305

## Diagram of Connections



Short circuit protected proximity switch with 2-wire technology for higher operating distances.

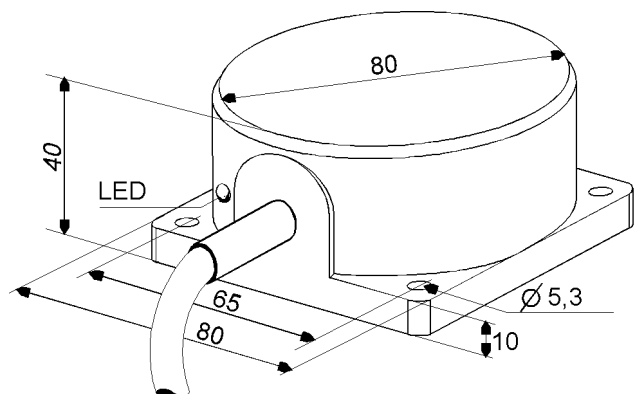
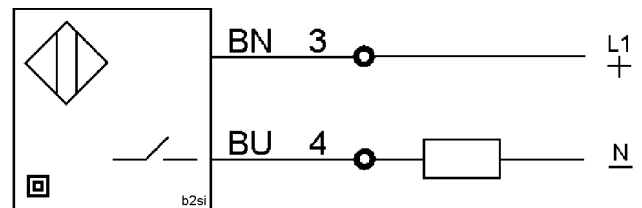
upto +100 °C



## Technical Data

<b>Type</b>	<b>IKK 050.05 GH</b>
Art.-No.	20441
Rated operating distance (Sn)	50 mm
Output	normally open
Operating distance adjustable	no
Target steel St37, 1 mm thick	150 x 150 mm
Location at metal	non flush
Supply voltage (UB)	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	0,8 A / 100 ms 2 A / 10 ms
Short circuit protection	yes
Residual current (Ir)	1,7 mA / 260 V AC 1,0 mA / 24 V DC
Voltage drop (Ud)	9 V
Operating frequency (f) AC/DC	25 Hz / 100 Hz
Switching hysteresis (H)	1 - 15 %
Ambient temperature	-25 ... +100 °C
Protection class	IP 67*
Connection	2m silicone cable
Function display	LED
Housing material	plastic PBT

## Diagram of Connections



Short circuit protected proximity switch with M80 metal-housing for lower operating distances.

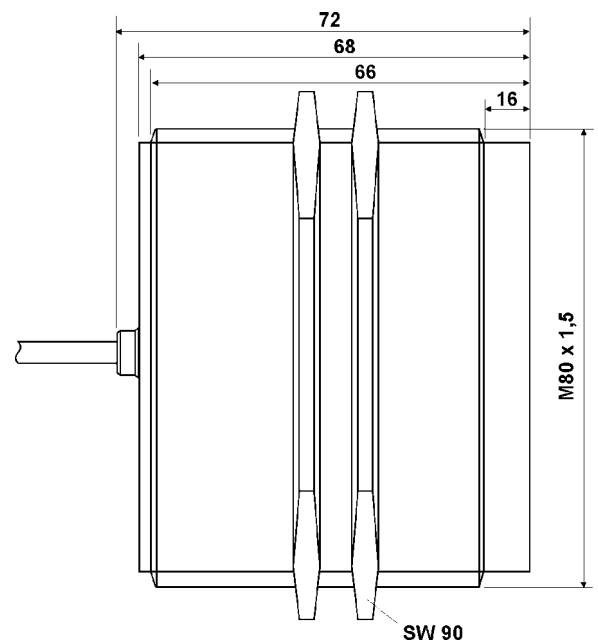
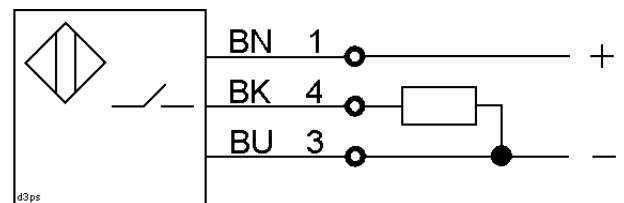
up to +160 °C

The Sensor is suitable for higher ambient temperature by the increased temperature range.

## Technical Data

<b>Type</b>	<b>IKZ 801.23 GH</b>
Art.-No.	2491A
Rated operating distance (Sn)	50 mm
Operating distance (Sa)	Sn +/-20%
Output	PNP n. o.
Target steel St37, 1 mm thick	150 x 150 mm
Location at metal	non flush mount free zone 100 mm necessary
Supply voltage (UB)	10 - 30 V DC
Ripple voltage	< 15 %
Load current max.	0 - 150 mA
Short circuit protection	yes
Voltage drop (Ud)	2 V
Current consumption	max. 8 mA / 24 V
Operating frequency (f)	50 Hz
Switching hysteresis (H)	3 - 20 %
Ambient temperature	-15 ... +160 °C
Protection class	IP 65
Connection	2 m silicone cable
Function display	no
Housing material	stainless steel 1.4305

## Diagram of Connections

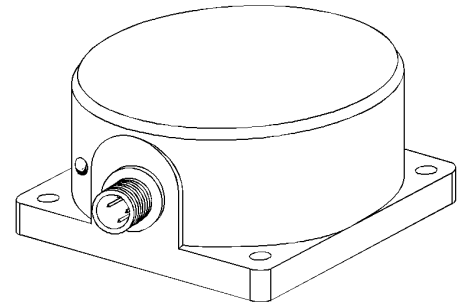


Short circuit protected proximity switch with 4-wire connection.

PNP normally open / normally close output and Proxi-Teach function.

The sensor recognises the existing installation conditions after the key is pressed, and adjusts the operating distance optimally.

Teach - In  
Funktion



## Technical Data

<b>Type</b>	<b>IKK 060T.38 GS4</b>
Art.-No.	2046E
Rated operating distance (S <sub>n</sub> )	60 mm
Output	PNP n. o. + n. c.
Operating distance adjustable	Teach In*
Target steel St37, 1mm thick	180 x 180 mm
Location at metal	Non flush
Supply voltage (U <sub>B</sub> )	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
Voltage drop (U <sub>d</sub> )	< 2 V
No-load current (I <sub>0</sub> )	< 10 mA
Switching frequency (f)	50 Hz
Switching hysteresis (H)	1 - 15 %
Ambient temperature	-25 ... +70 °C
Protection class	IP 67**
Connection	plug S4
Function display	LED
Housing material	Plastic PBT

\*The teach-in function enables usage under non-standard conditions such as, for example, partly flush installation. For further setting information see PIA002

\*\*The protection class is complied with when the protection screw for the adjusting device is screwed in.

## Diagram of Connections

