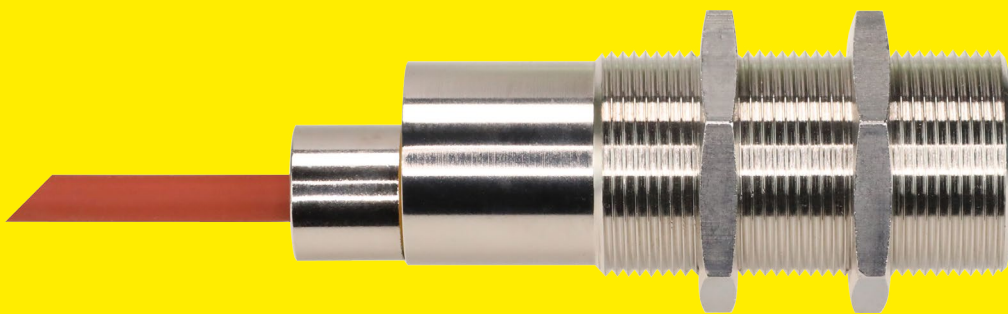


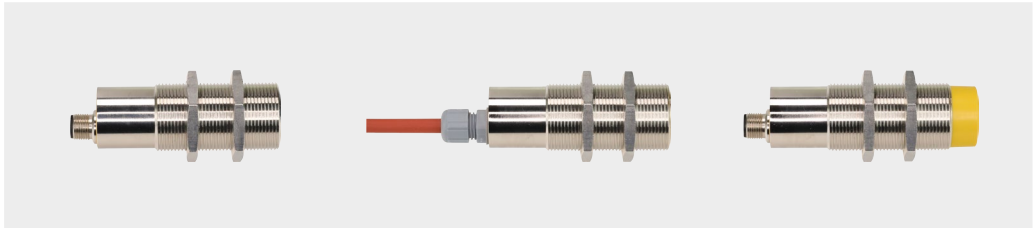
Inductive Proximity Switches

M30 threaded metal housing

robust - temperature resistant - increased switching distance



Inductive Proximity Switches
Metal housing with M30 thread



Temperature max.	Sensing distance Sn	10	10	15	15	25	25
	Mounting	flush	flush	non flush	non flush	non flush	non flush
	Housing	M30	M30	M30	M30	M30	M30
	Material	brass, nickel-plated	brass, nickel-plated	brass, nickel-plated	brass, nickel-plated	brass, nickel-plated	brass, nickel-plated
	Protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
	Connection	plug (M12)	cable	plug (M12)	cable	plug (M12)	cable
+80 °C	20-260 V AC/DC n.c.	IKZ 302.04 G S27	IKZ 302.04 G	IKZ 301.04 G S27	IKZ 301.04 G	IKZ 325.04 G S27	IKZ 325.04 G
	20-260 V AC/DC n.o.	IKZ 302.05 G S27	IKZ 302.05 G	IKZ 301.05 G S27	IKZ 301.05 G	IKZ 325.05 G S27	IKZ 325.05 G
	24 V DC n.c.	IKZ 302.16 G S4	IKZ 302.16 G	IKZ 301.16 G S4	IKZ 301.16 G	IKZ 325.16 G S4	IKZ 325.16 G
	24 V DC n.o.	IKZ 302.17 G S4	IKZ 302.17 G	IKZ 301.17 G S4	IKZ 301.17 G	IKZ 325.17 G S4	IKZ 325.17 G
	10-55 V DC NPN n.c.	IKZ 302.30 G S4	IKZ 302.30 G	IKZ 301.30 G S4	IKZ 301.30 G	IKZ 325.30 G S4	IKZ 325.30 G
	10-55 V DC NPN n.o.	IKZ 302.31 G S4	IKZ 302.31 G	IKZ 301.31 G S4	IKZ 301.31 G	IKZ 325.31 G S4	IKZ 325.31 G
	10-55 V DC PNP n.c.	IKZ 302.32 G S4	IKZ 302.32 G	IKZ 301.32 G S4	IKZ 301.32 G	IKZ 325.32 G S4	IKZ 325.32 G
	10-55 V DC PNP n.o.	IKZ 302.33 G S4	IKZ 302.33 G	IKZ 301.33 G S4	IKZ 301.33 G	IKZ 325.33 G S4	IKZ 325.33 G
	10-55 V DC PNP n.c. + n.o.	IKZ 302.38 G S4	IKZ 302.38 G	IKZ 301.38 G S4	IKZ 301.38 G	IKZ 325.38 G S4	IKZ 325.38 G
	Cable versions	PVC, PUR		PVC, PUR		PVC, PUR	
+100 °C	20-260 V AC/DC n.c.	IKZ 302.04 GH S27	IKZ 302.04 GH	IKZ 301.04 GH S27	IKZ 301.04 GH	IKZ 325.04 GH S27	IKZ 325.04 GH
	20-260 V AC/DC n.o.	IKZ 302.05 GH S27	IKZ 302.05 GH	IKZ 301.05 GH S27	IKZ 301.05 GH	IKZ 325.05 GH S27	IKZ 325.05 GH
	24 V DC n.c.	IKZ 302.16 GH S4	IKZ 302.16 GH	IKZ 301.16 GH S4	IKZ 301.16 GH	IKZ 325.16 GH S4	IKZ 325.16 GH
	24 V DC n.o.	IKZ 302.17 GH S4	IKZ 302.17 GH	IKZ 301.17 GH S4	IKZ 301.17 GH	IKZ 325.17 GH S4	IKZ 325.17 GH
	10-55 V DC NPN n.c.	IKZ 302.30 GH S4	IKZ 302.30 GH	IKZ 301.30 GH S4	IKZ 301.30 GH	IKZ 325.30 GH S4	IKZ 325.30 GH
	10-55 V DC NPN n.o.	IKZ 302.31 GH S4	IKZ 302.31 GH	IKZ 301.31 GH S4	IKZ 301.31 GH	IKZ 325.31 GH S4	IKZ 325.31 GH
	10-55 V DC PNP n.c.	IKZ 302.32 GH S4	IKZ 302.32 GH	IKZ 301.32 GH S4	IKZ 301.32 GH	IKZ 325.32 GH S4	IKZ 325.32 GH
	10-55 V DC PNP n.o.	IKZ 302.33 GH S4	IKZ 302.33 GH	IKZ 301.33 GH S4	IKZ 301.33 GH	IKZ 325.33 GH S4	IKZ 325.33 GH
	10-55 V DC PNP n.c. + n.o.	IKZ 302.38 GH S4	IKZ 302.38 GH	IKZ 301.38 GH S4	IKZ 301.38 GH	IKZ 325.38 GH S4	IKZ 325.38 GH
	Cable versions	Silicone, PTFE		Silicone, PTFE		Silicone, PTFE	
+120 °C	20-260 V AC/DC n.c.	IKZ 302.04 GH1		IKZ 301.04 GH1		IKZ 325.04 GH1	
	20-260 V AC/DC n.o.	IKZ 302.05 GH1		IKZ 301.05 GH1		IKZ 325.05 GH1	
	24 V DC n.c.						
	24 V DC n.o.						
	10-55 V DC NPN n.c.	IKZ 302.30 GH1		IKZ 301.30 GH1		IKZ 325.30 GH1	
	10-55 V DC NPN n.o.	IKZ 302.31 GH1		IKZ 301.31 GH1		IKZ 325.31 GH1	
	10-55 V DC PNP n.c.	IKZ 302.32 GH1		IKZ 301.32 GH1		IKZ 325.32 GH1	
	10-55 V DC PNP n.o.	IKZ 302.33 GH1		IKZ 301.33 GH1		IKZ 325.33 GH1	
	10-55 V DC PNP n.c. + n.o.	IKZ 302.38 GH1		IKZ 301.38 GH1		IKZ 325.38 GH1	
	Cable versions	Silicone, PTFE		Silicone, PTFE		Silicone, PTFE	

PROXI Polar^{-°C}

Proxitron low-temperature series for temperatures from -40 °C available for many designs.

PROXI Heat^{+°C}

Proxitron high-temperature series for temperatures of up to +120 °C available for many designs.

PROXI HT^{+°C}

Proxitron high-temperature series for temperatures of up to +230 °C

See “Inductive sensors high temperatures” brochure

PROXI PTFE

Proxitron sensors with PTFE housing for chemically aggressive environments.

See “Inductive sensors PTFE housing” brochure

PROXI Plus

Product line extension with increased switching distance in existing housing design.

See “ProxiPlus” brochure.

Inductive Proximity Switches
Metal housing with M30 thread



The sensing distance Sn describes the axial approaching of a square steel plate with its side length equal to three times the sensing distance. (for example: Sensing distance 15 mm relates to a steel plate with side length of 45 x 45 mm). Smaller metal object reduces the maximum attainable sensing distance.

The attainable sensing distance is a function of the material of the metal object and can be calculated using the correction factor:
max. possible sensing distance = sensing distance x correction factor

material	metal foil	steel	stainless steel	brass	aluminium	copper	nickel	cast iron
correction factor	1,2	1	0,5 ... 0,8	0,45	0,4	0,3	0,7	0,93 ... 1,05

General Information Inductive Proximity Switches

Our inductive proximity switches with robust metal housings are designed for demanding industrial applications. They are available in various versions – with either a connector or a permanently attached cable, different operating voltages, and output functions. Models with extended sensing ranges increase the range of possible applications. For particularly challenging environments, high-temperature variants with resistance up to 100 °C and 120 °C are available. Versions with an M16 internal thread for conduit fittings are also offered, enabling secure and protected installation. Variants with shifted oscillation frequency allow multiple sensors to be mounted directly next to each other without mutual interference. Customized adaptations for special applications or corporate-identity requirements can be realized upon request.

Type Code								
Type (see table previous page)	e. g. IKZ 301							
20 - 260 V AC/DC	0							
24 V DC	1							
10 - 55 V DC	3							
NPN - normally closed	0							
NPN - normally open	1							
PNP - normally closed	2							
PNP - normally open	3							
2-wire normally closed AC/DC	4							
2-wire normally open AC/DC	5							
2-wire normally closed 24 V DC	6							
2-wire normally open 24 V DC	7							
PNP normally closed + PNP normally open	8							
Internal thread M16 at cable output (e.g. for protective hose connection)	C							
Short circuit protection	G							
High temperature version up to +100 °C	H							
High temperature version up to +120 °C	H1							
Low temperature version from -40 °C	N							
Fixed connection cable*								
Plug M12x1 DC	S4							
Plug M12x1 AC	S27							
Offset oscillation frequency for row installation	F							
Customer specific version	SA							

* Connection cables are available in standard lengths of 2, 5, 10, 15 and 20 m made of PVC, PUR, silicone and PTFE.

Cable material	Temperature	Features
PVC	-25 °C up to +80 °C	cold, heat and seawater resistant
PUR	-25 °C up to +80 °C	notch-resistant, high impact resistance, flexible, abrasion-resistant, resistant to mineral oils, UV- and ozone as well as solvent- and seawater resistant
Silicone	-50 °C up to +180 °C	halogen free, flame-retardant, resistant to several oils, alcohols, lubricants and other chemical media, great flexibility
PTFE	-190 °C up to +260 °C	excellent resistance to acids, varnishes, oils, hydraulic fluids etc., hardly inflammable, low water absorption, weather and ozone resistant.