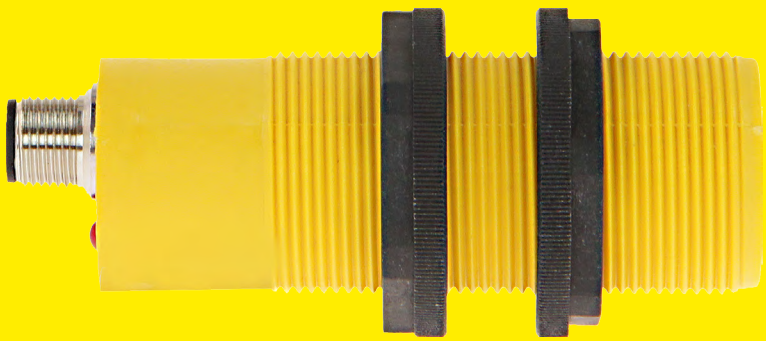
Proxitron

SENSORS MADE IN GERMANY

Inductive Proximity Switches

M30 threaded plastic housing

corrosion-free - temperature resistant



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	Sensing distance Sn	10	10	15	15	25	25
Temperature max.	Mounting	flush	flush	non flush	non flush	non flush	non flush
	Housing	M30	M30	M30	M30	M30	M30
	Material	PBT	PBT	PBT	PBT	PBT	PBT
	Protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
	Connection	cable	plug (M12)	cable	plug (M12)	cable	plug (M12)
+80 °C	20-260 V AC/DC n.c.	IKL 010.04 G	IKL 010.04 G S27	IKL 015.04 G	IKL 015.04 G S27	IKL 025.04 G	IKL 025.04 G S27
	20-260 V AC/DC n.o.	IKL 010.05 G	IKL 010.05 G S27	IKL 015.05 G	IKL 015.05 G S27	IKL 025.05 G	IKL 025.05 G S27
	24 V DC n.c.	IKL 010.16 G	IKL 010.16 G S4	IKL 015.16 G	IKL 015.16 G S4	IKL 025.16 G	IKL 025.16 G S4
	24 V DC n.o.	IKL 010.17 G	IKL 010.17 G S4	IKL 015.17 G	IKL 015.17 G S4	IKL 025.17 G	IKL 025.17 G S4
	10-55 V DC NPN n.c.	IKL 010.30 G	IKL 010.30 G S4	IKL 015.30 G	IKL 015.30 G S4	IKL 025.30 G	IKL 025.30 G S4
	10-55 V DC NPN n.o.	IKL 010.31 G	IKL 010.31 G S4	IKL 015.31 G	IKL 015.31 G S4	IKL 025.31 G	IKL 025.31 G S4
	10-55 V DC PNP n.c.	IKL 010.32 G	IKL 010.32 G S4	IKL 015.32 G	IKL 015.32 G S4	IKL 025.32 G	IKL 025.32 G S4
	10-55 V DC PNP n.o.	IKL 010.33 G	IKL 010.33 G S4	IKL 015.33 G	IKL 015.33 G S4	IKL 025.33 G	IKL 025.33 G S4
	10-55 V DC PNP n.c. + n.o.	IKL 010.38 G	IKL 010.38 G S4	IKL 015.38 G	IKL 015.38 G S4	IKL 025.38 G	IKL 025.38 G S4
	Cable versions	PVC, PUR		PVC, PUR		PVC, PUR	
+100 °C	20-260 V AC/DC n.c.	IKL 010.04 GH	IKL 010.04 GH S27	IKL 015.04 GH	IKL 015.04 GH S27	IKL 025.04 GH	IKL 025.04 GH S27
	20-260 V AC/DC n.o.	IKL 010.05 GH	IKL 010.05 GH S27	IKL 015.05 GH	IKL 015.05 GH S27	IKL 025.05 GH	IKL 025.05 GH S27
	24 V DC n.c.	IKL 010.16 GH	IKL 010.16 GH S4	IKL 015.16 GH	IKL 015.16 GH S4	IKL 025.16 GH	IKL 025.16 GH S4
	24 V DC n.o.	IKL 010.17 GH	IKL 010.17 GH S4	IKL 015.17 GH	IKL 015.17 GH S4	IKL 025.17 GH	IKL 025.17 GH S4
	10-55 V DC NPN n.c.	IKL 010.30 GH	IKL 010.30 GH S4	IKL 015.30 GH	IKL 015.30 GH S4	IKL 025.30 GH	IKL 025.30 GH S4
	10-55 V DC NPN n.o.	IKL 010.31 GH	IKL 010.31 GH S4	IKL 015.31 GH	IKL 015.31 GH S4	IKL 025.31 GH	IKL 025.31 GH S4
	10-55 V DC PNP n.c.	IKL 010.32 GH	IKL 010.32 GH S4	IKL 015.32 GH	IKL 015.32 GH S4	IKL 025.32 GH	IKL 025.32 GH S4
	10-55 V DC PNP n.o.	IKL 010.33 GH	IKL 010.33 GH S4	IKL 015.33 GH	IKL 015.33 GH S4	IKL 025.33 GH	IKL 025.33 GH S4
	10-55 V DC PNP n.c. + n.o.	IKL 010.38 GH	IKL 010.38 GH S4	IKL 015.38 GH	IKL 015.38 GH S4	IKL 025.38 GH	IKL 025.38 GH S4
	Cable versions	Silicone, PTFE		Silicone, PTFE		Silicone, PTFE	
+120 °C	20-260 V AC/DC n.c.	IKL 010.04 GH1		IKL 015.04 GH1			
	20-260 V AC/DC n.o.	IKL 010.05 GH1		IKL 015.05 GH1			
	24 V DC n.c.						
	24 V DC n.o.						
	10-55 V DC NPN n.c.	IKL 010.30 GH1		IKL 015.30 GH1		IKL 025.30 GH1	
	10-55 V DC NPN n.o.	IKL 010.31 GH1		IKL 015.31 GH1		IKL 025.31 GH1	
	10-55 V DC PNP n.c.	IKL 010.32 GH1		IKL 015.32 GH1		IKL 025.32 GH1	
	10-55 V DC PNP n.o.	IKL 010.33 GH1		IKL 015.33 GH1		IKL 025.33 GH1	
	10-55 V DC PNP n.c. + n.o.	IKL 010.38 GH1		IKL 015.38 GH1		IKL 025.38 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.

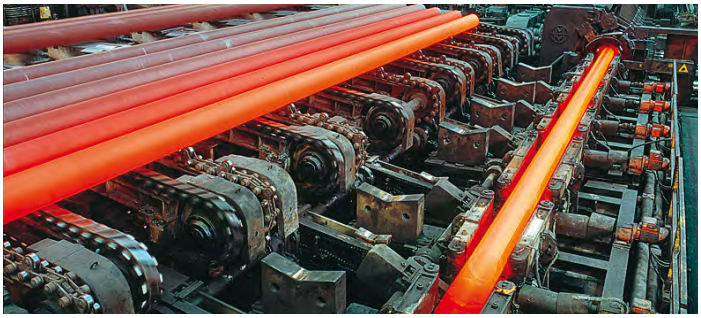
The sensing distance Sn describes the axial approaching of a square steel plate with its side length equal to three times the sensing distance. (for example: Sensing distance 15 mm relates to a steel plate with side length of 45 x 45 mm). Smaller metal object reduces the maximum attainable sensing distance.

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

Sensors in plastic housings are used in a variety of applications and often in places one would expect stainless steel housings. However, Proxitron plastic housings consist of full potting and therefore are absolutely corrosion-free and reliable even at quick changing temperatures and in an aggressive ambient, as for example in hot rolling mills. Various combination possibilities with several cables, different in condition and lengths, are available.



Type Code

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Type (see table previous page)	e. g. IKL 015
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
Fixed protective hose gland 3/8“ or 5/16“	M
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

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