









Inductive Proximity Switches
19 - 60 mm
Sensing Distance



Non-contact detection of metal objects

AC - DC - Normally Open - Normally Closed - -40 °C - +120 °C - Teach-In - IP68

Sensing distance S_n [mm]	19	20	20	20	
Mounting	nf	nf	nf	f	
Housing size [mm]	Ø 35 / L = 90	Ø 34 / L = 80	40 x 40 x 120	PG36 / L = 70	
					
Housing material	PTFE	PBT	PBT	brass, nickel plated	
Protection class	IP 68	IP 67	IP 67	IP 67	
Type	IKHT 019	IKH 020	IKQ 020	IKZ 471 / IKZ 474	
PROXI Heat⁺	yes	yes	no	yes	
PROXI Polar⁻	yes	yes	no	yes	

Sensing distance S_n [mm]	25	25	25	30	
Mounting	conditionally f	f	f	nf	
Housing size [mm]	PG36 / L = 70	60 x 60 x 40	60 x 60 x 40	40 x 40 x 120	
					
Housing material	brass, nickel plated	PBT / aluminium	aluminium	PBT	
Protection class	IP 67	IP 67	IP 67	IP 67	
Type	IKZ 475	IKI 025	IKF 025	IKQ 030	
PROXI Heat⁺	yes	yes	yes	no	
PROXI Polar⁻	yes	yes	yes	no	

f = flush / nf = non flush

PROXI Heat⁺






Proxitron-high temperature series for temperatures of up to 120 °C.






PROXI Polar⁻

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

The sensing distance stated above describes the axial approximation of a square steel plate with its side length equal to three times the sensing distance. (for example: Sensing distance 50 mm relates to a steel plate with side length of 150 x 150 mm). Smaller metal object reduces the maximum attainable sensing distance.

Inductive Proximity Switches 35 - 60 mm sensing distance

	35	40	40	40	45
	nf	nf	f	f	f
	Ø 54 / L = 68	40 x 40 x 120	80 x 80 x 40	80 x 80 x 40	110 x 110 x 55
					
	PBT	PBT	PBT	aluminium	aluminium
	IP 67	IP 67	IP 67	IP 67	IP 67
	IKH 035	IKQ 040	IKK 040	IKG 040	IKD 045
	yes	no	yes	yes	yes
	yes	no	yes	yes	yes

	50	50	50 / 60	60	60
	nf	nf	nf	nf	nf
	Ø 80 / L = 67	80 x 120 x 30	80 x 80 x 40	150 x 108 x 58	162 x 150 x 58
					
	PBT	PBT	PBT	PBT / aluminium	PBT / aluminium
	IP 67	IP 67	IP 67	IP 67	IP 67
	IKJ 050	IKRD 050	IKK 050 / IKK 060	IKN 060	IKNR 060
	yes	yes	yes	yes	yes
	yes	yes	yes	yes	yes

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

Inductive Proximity Switches

Basic Information

Inductive proximity switches detect metal objects contactless. Proxitron offers the widest variety of robustly constructed designs for standard industrial solutions and complex applications. Versions with extended temperature range and the comfortable setting with teach-in enable safe operation even under demanding conditions. Customisations provide the optimum solution for every application.

- **contactless detection of metal objects**
- **unaffected by contamination**
- **different supply voltages**
- **various switching outputs**
- **short circuit and reverse polarity protection**
- **ProxiHeat up to +120 °C**
- **ProxiPolar from -40 °C**
- **cable- or plug connection**
- **protection class up to IP68**

Type Code

Type (see table previous page)	e. g. IKK 060								
Proxi-Teach**	T								
20 - 260 V AC/DC		0							
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						
PNP normally open + PNP normally closed antivalent			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			
Standard version with fixed connection cable*									
Connecting terminal box							D		
Plug M12x1 DC							S4		
Plug 7/8" – 16 UN (IP68)							S5		
Plug M12x1 AC							S27		
Offset oscillation frequency for row installation								F	
Customer specific version									SA

*Connecting cables are available in different lengths and materials. Please tell us your requirements. We will be pleased to advise you.

** Proximity switches with Proxi-Teach™ recognise the existing installation conditions after one key is pressed and adjust the operating distance optimally. This enables safety operation under non-standard installation conditions. The effort upon startup is minimized.