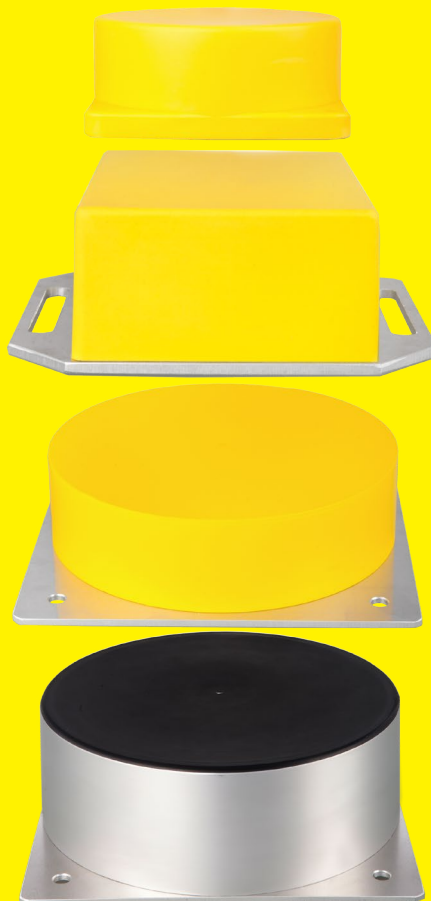


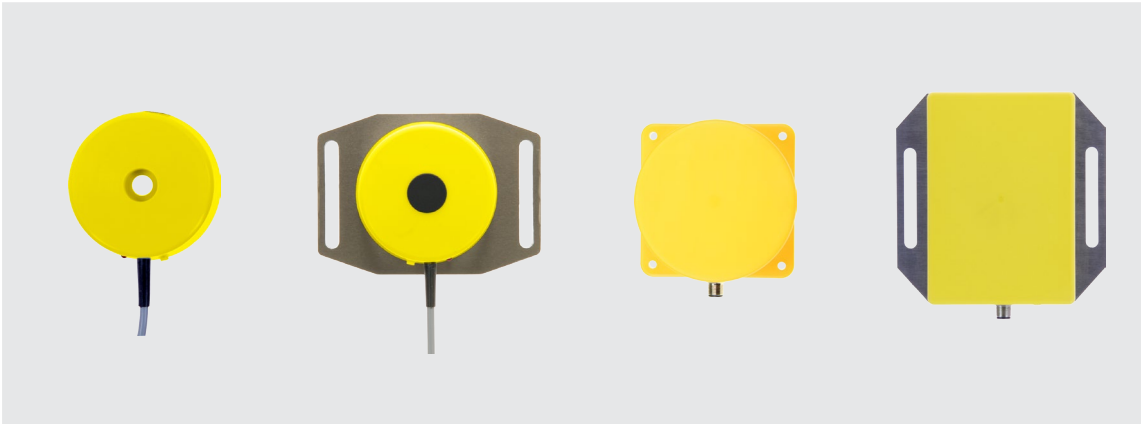
# Inductive Proximity Switches

## 70 - 235 mm Sensing Distance

Non-contact detection of metal objects

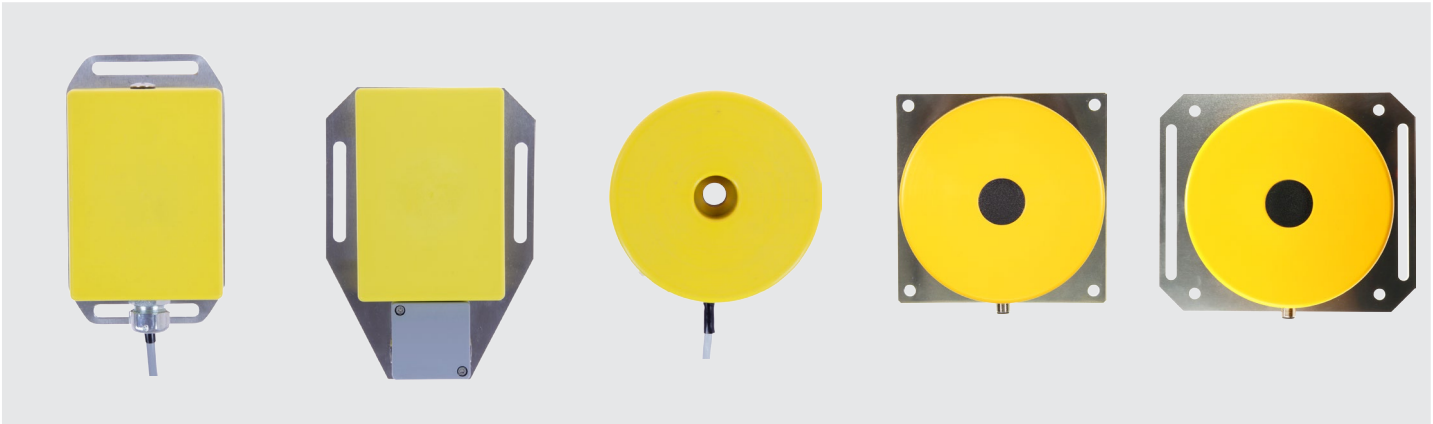


Inductive Proximity Switches  
70 - 235 mm sensing distance

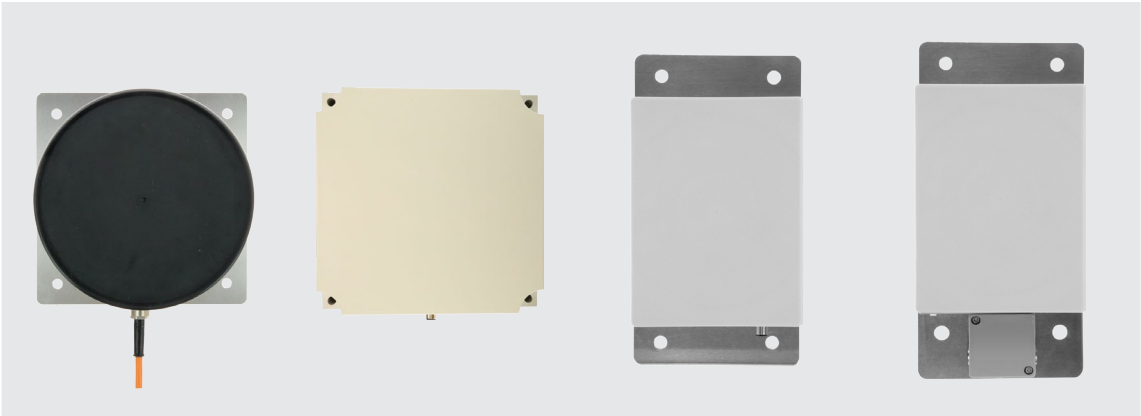


Sensing distance Sn [mm]	70	70	70 / 90	100
Type	IKM 070	IKMN 070	IKN 070 / IKN 090	IKQ 100
Mounting	non flush	non flush	non flush	non flush
Housing size [mm]	Ø 95 / H = 40	108 x 150 x 43	110 x 110 x 43	150 x 150 x 56
Housing material	PBT	PBT / aluminium	PBT	PBT / aluminium
Protection class	IP 67	IP 67	IP 67	IP 67
PROXI Heat <sup>+°C</sup>	yes	yes	yes	yes
PROXI Polar <sup>-°C</sup>	yes	yes	yes	yes

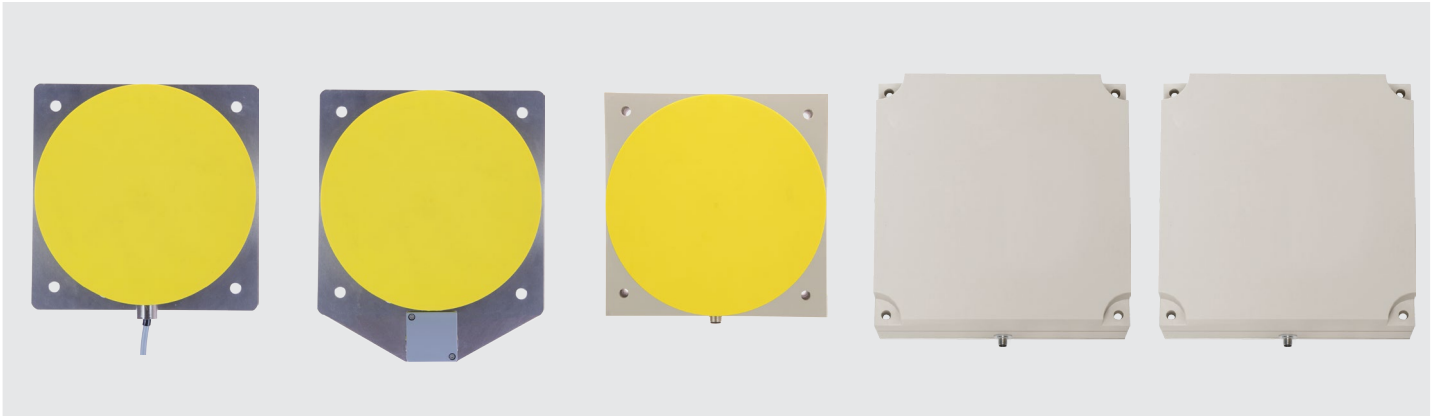
Inductive Proximity Switches  
70 - 235 mm sensing distance



Sensing distance Sn [mm]	100	100	100 / 125	100 / 125	100 / 125
Type	IKQA 100	IKQR 100	IKO 100 / IKO 125	IKOH 100 / IKOH 125	IKON 100 / IKON 125
Mounting	non flush	non flush	non flush	non flush	nicht flush
Housing size [mm]	108 x 194 x 56	150 x 210 x 56	Ø 163 / H = 64	170 x 170 x 68	180 x 210 x 68
Housing material	PBT / aluminium	PBT / aluminium	PBT	PBT / aluminium	PBT / aluminium
Protection class	IP 67	IP 67	IP 67	IP 67	IP 67
PROXI Heat <sup>+°C</sup>	yes	yes	yes	yes	yes
PROXI Polar <sup>-°C</sup>	yes	yes	yes	yes	yes



Sensing distance Sn [mm]	100	100	120	120
Type	IKE 100	IKC 100	IKU 215	IKUR 215
Mounting	flush	flush	non flush	non flush
Housing size [mm]	212 x 212 x 75	230 x 230 x 85	280 x 150 x 68	300 x 150 x 68
Housing material	aluminium	PP / aluminium	PBT / aluminium	PBT / aluminium
Protection class	IP 67	IP 68	IP 67	IP 67
PROXI Heat <sup>+°C</sup>	yes	no	yes	yes
PROXI Polar <sup>-°C</sup>	yes	yes	yes	yes



Sensing distance Sn [mm]	120 / 140	120 / 140	180	150	200 / 235
Type	IKOA 120 / IKOA 140	IKOAR 120 / 140	IKOC 180	IKC 150	IKC 200 / IKC 235
Mounting	non flush	non flush	non flush	flush	non flush
Housing size [mm]	212 x 212 x 58	212 x 270 x 58	202 x 202 x 97	320 x 320 x 85	320 x 320 x 85
Housing material	PBT / aluminium	PBT / aluminium	PBT / PP	PP / aluminium	PP / aluminium
Protection class	IP 67	IP 67	IP 67	IP 68	IP 68
PROXI Heat <sup>+°C</sup>	yes / no	yes / no	no	no	no
PROXI Polar <sup>-°C</sup>	yes	yes	no	yes	yes / no

PROXI Polar<sup>-°C</sup>

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

PROXI Heat<sup>+°C</sup>

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

PROXI HT<sup>+°C</sup>

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 70 mm relates to a steel plate with side length of 210 x 210 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

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. Customized variants can be created, offering the ideal 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. IKM 070								
Proxi-Teach*	T								
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**									
Connecting terminal box							D		
Plug M12x1 DC							S4		
Plug 7/8" – 16 UN							S5		
Plug M12x1 AC							S27		
Offset oscillation frequency for row installation								F	
Customer specific version									SA

\* 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.

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