Proxitron

SENSORS MADE IN GERMANY

Inductive Proximity Switches

20 - 80 mm Sensing Distance

Non-contact detection of metal objects

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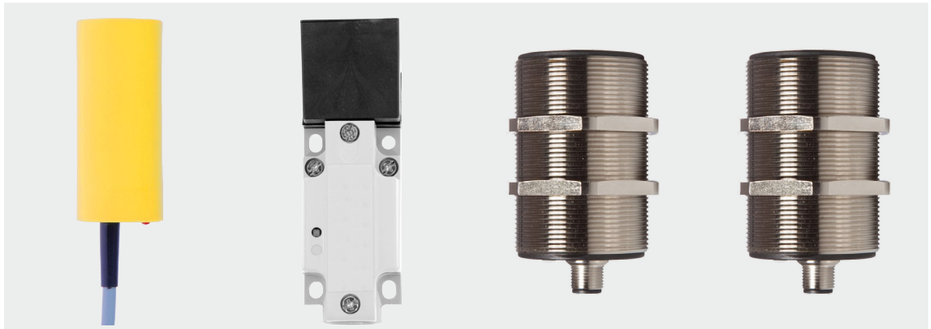
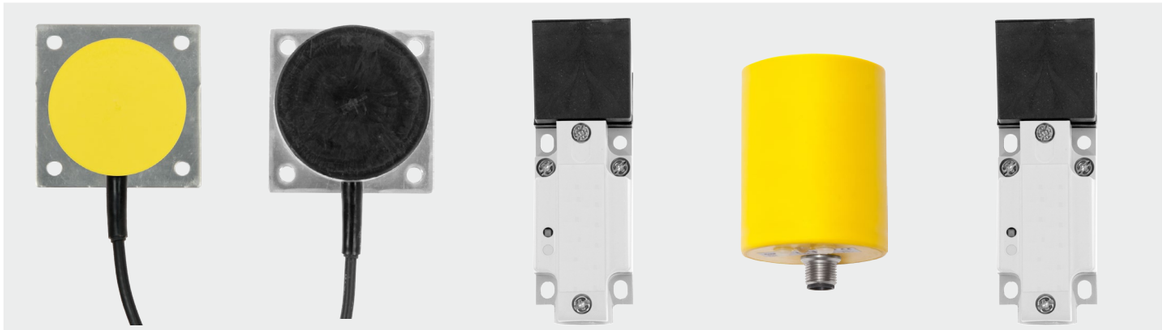
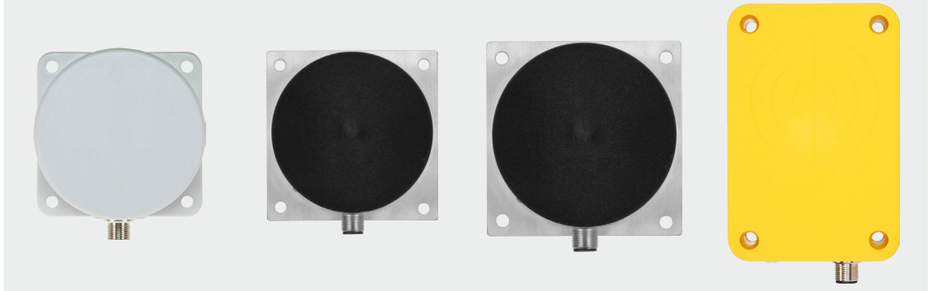




Sensing distance Sn [mm]	20 / 30	20	20	25	25	25	30	35 / 45	40
Type	**IKH 020 / IKH 030**	**IKQ 020**	**IKZ 471 / IKZ 474**	**IKZ 475**	**IKI 025**	**IKF 025**	**IKQ 030**	**IKH 035 / IKH 045**	**IKQ 040**
Mounting	non flush	non flush	flush	conditionally flush	flush	flush	non flush	non flush	non flush
Housing size [mm]	Ø 34 / L = 80	40 x 40 x 120	PG36 / L = 70	PG36 / L = 70	60 x 60 x 40	60 x 60 x 40	40 x 40 x 120	Ø 54 / L = 68	40 x 40 x 120
Housing material	PBT	PBT	brass, nickel plated	brass, nickel plated	PBT / aluminium	aluminium	PBT	PBT	PBT
Protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
PROXI Heat	yes	no	yes	no	yes	yes	no	yes	no
PROXI Polar	yes	no	yes	no	yes	yes	no	yes	no



Sensing distance Sn [mm]	40 / 50	40	45	50 / 60 / 70	50 / 60 / 70	50 / 70	50 / 70	60 / 80	60 / 80
Type	**IKK 040 / IKK 051**	**IKG 040**	**IKD 045**	**IKRD 050 / 060 / 070**	**IKK 050 / 060 / 070**	**IKJH 050 / IKJH 070**	**IKJ 050 / IKJ 070**	**IKN 060 / IKN 080**	**IKNR 060 / IKNR 080**
Mounting	flush	flush	flush	non flush	non flush	non flush	non flush	non flush	non flush
Housing size [mm]	80 x 80 x 40	80 x 80 x 40	110 x 110 x 55	80 x 120 x 30	80 x 80 x 40	80 x 80 x 70	Ø 80 / L = 67	150 x 108 x 58	162 x 150 x 58
Housing material	PBT	aluminium	aluminium	PBT	PBT	PBT	PBT	PBT / aluminium	PBT / aluminium
Protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
PROXI Heat	yes	yes	yes	yes	yes	yes	yes	yes	yes
PROXI Polar	yes	yes	yes	yes	yes	yes	yes	yes	yes

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

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

PROXI HT — 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 50 mm relates to a steel plate with side length of 150 x 150 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. IKK 060
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.

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