

dimensions	16 x 28 x 10mm 16 x 28 x 10.4mm 26 x 40 x 12mm	
flush	sensing range	2mm
non-flush	sensing range	4mm

- ✓ short response time due to high switching frequency
- ✓ LED-display of the switching state
- ✓ miniature design with integrated amplifier
- ✓ connection with cable or 3-pin M8-connector



**flush or non-flush mounting
several connection versions**



description

The electronics of these sensors are cast into the square-shaped plastic housing and as such, they are protected from all kinds of vibrations.

Examples for the areas of application in which these inductive sensors are used include among others: mechanical engineering/plant construction, automotive industry, warehouse and materials handling equipment, packaging industry, printing and paper industries, chemical and process engineering.

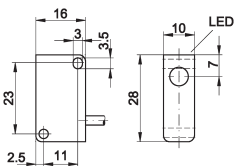
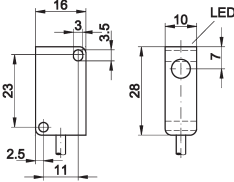
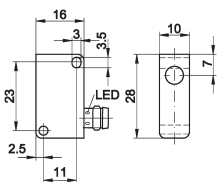
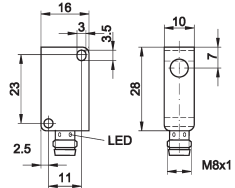
An inductive sensor (proximity switch, position sensor, initiator) is a contactless switch which reliably detects metallic objects. In the case of inductive sensors, a correction factor is stated which evaluates the reduction of the sensing range in relation to the different materials that the object is made from. This factor depends on the type, characteristics (internal structure), size and geometry of the material that the object to be detected is made from. The stated sensing range value relates

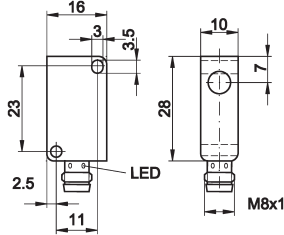
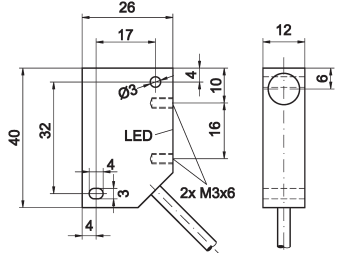
to steel St37 (factor 1 steel). In order to assess the approximate sensing range for materials which differ from this, the value has to be multiplied by the appropriate correction factor.

In order to ensure that the device runs reliably, it is essential that the fitting conditions on this data sheet are adhered to. For realizing the maximum sensing range, the size and characteristics of the object to be detected (standard target and/or flat surface) should be taken into account.

application examples

- ▶ inspection of die-cut metal parts of various sizes
- ▶ integration, even in machine parts with very limited available space
- ▶ position switches in the feeding technology sector
- ▶ detection of objects through the walls of non-metallic containers and tubes

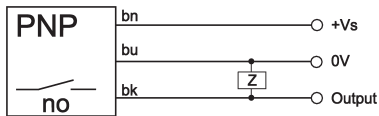
article-no.	IB160100	IB160105	IB160170	IB160175
sensing range	2.0mm	2.0mm	2.0mm	2.0mm
mounting	flush	flush	flush	flush
connection	2m PVC cable lateral	2m PVC cable straight	M8 connector lateral	M8 connector straight
				
TECHNICAL DATA				
sensing range (Sn)	2.0mm	2.0mm	2.0mm	2.0mm
mounting	flush	flush	flush	flush
output signal	pnnp, no	pnnp, no	pnnp, no	pnnp, no
operating voltage	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 11mA	≤ 13mA	≤ 11mA	≤ 13mA
output current (max. load)	200mA	200mA	200mA	200mA
voltage drop (max. load)	1.6V DC	2.4V DC	1.6V DC	2.4V DC
norm trimming plate	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2
hysteresis	5 ... 15% of Sn	5 ... 15% of Sn	5 ... 15% of Sn	5 ... 15% of Sn
switching frequency	800Hz	1kHz	800Hz	1kHz
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
dimensions	16x28x10.4mm	16x28x10mm	16x28x10.4mm	16x28x10mm
housing material	PA 6.6	PA 6.6	PA 6.6	PA 6.6
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
degree of protection (EN60529)	IP67	IP67	IP67	IP67
connection	2m PVC-cable, 3-wire	2m PVC-cable, 3-wire	M8-connector, 3-pin	M8-connector, 3-pin
cojnnnection accessories	-	-	e.g. VK200071	e.g. VK200071
mounting accessories (universal holder)	AY000118	AY000118	AY000118	AY000118

article-no.	IN160175	IB260100
sensing range	4.0mm	2.0mm
mounting	non-flush	flush
connection	M8 connector straight	2m PVC cable diagonal
 		
TECHNICAL DATA		
sensing range (Sn)	4.0mm	2.0mm
mounting	flush	flush
output signal	pnnp, no	pnnp, no
operating voltage	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 13mA	≤ 13mA
output current (max. load)	200mA	200mA
voltage drop (max. load)	2.4V DC	2.4V DC
norm trimming plate	EN 60947-5-2	EN 60947-5-2
hysteresis	5 ... 15% of Sn	5 ... 15% of Sn
switching frequency	800Hz	1kHz
display (signal)	yellow LED	yellow LED
short-circuit protection	+	+
reverse polarity protection	+	+
dimensions	26x40x12mm	26x40x12mm
housing material	PA6.6	PBT
operating temperature	-25 ... +70°C	-25 ... +70°C
degree of protection (EN 60529)	IP67	IP67
connection	M8-connector, 3-pin	2m PVC-cable, 3-wire
connection accessories	e.g. VK200071	-
mounting accessories (universal holder)	AY000118	AY000118

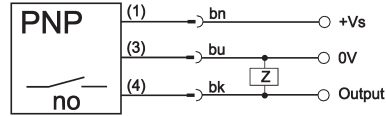
article-no.	IB260170	IN260100	IN260170	
sensing range	2.0mm	4.0mm	4.0mm	
mounting	flush	non-flush	non-flush	
connection	M8 connector diagonal	2m PVC cable diagonal	M8 connector diagonal	
	TECHNICAL DATA			
	sensing range (Sn)	2.0mm	4.0mm	4.0mm
	mounting	flush	non-flush	non-flush
	output signal	pnnp, no	pnnp, no	pnnp, no
	operating voltage	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC
	current consumption (w/o load)	≤ 13mA	≤ 13mA	≤ 13mA
	output current (max. load)	200mA	200mA	200mA
	voltage drop (max. load)	2.4V DC	2.4V DC	2.4V DC
	norm trimming plate	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2
hysteresis	5 ... 15% of Sn	5 ... 15% of Sn	5 ... 15% of Sn	
switching frequency	1kHz	1kHz	1kHz	
display (signal)	yellow LED	yellow LED	yellow LED	
short-circuit protection	+	+	+	
reverse polarity protection	+	+	+	
dimensions	26x40x12mm	26x40x12mm	26x40x12mm	
housing material	PBT	PBT	PBT	
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	
degree of protection (EN 60529)	IP67	IP67	IP67	
connection	M8-connector, 3-pin	2m PVC cable, 3-wire	M8-connector, 3-pin	
connection accessories	e.g. VK200071	-	e.g. VK200071	
mounting accessories (universal holder)	AY000118	AY000118	AY000118	

connection

cable device



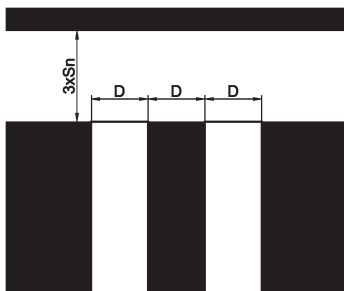
connector device



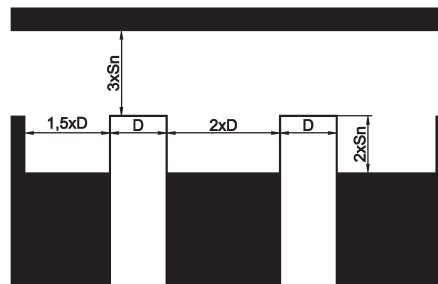
wire colors: bn = brown (1), bu = blue (3), bk = black (4)

mounting parameters

flush mounting



non-flush mounting



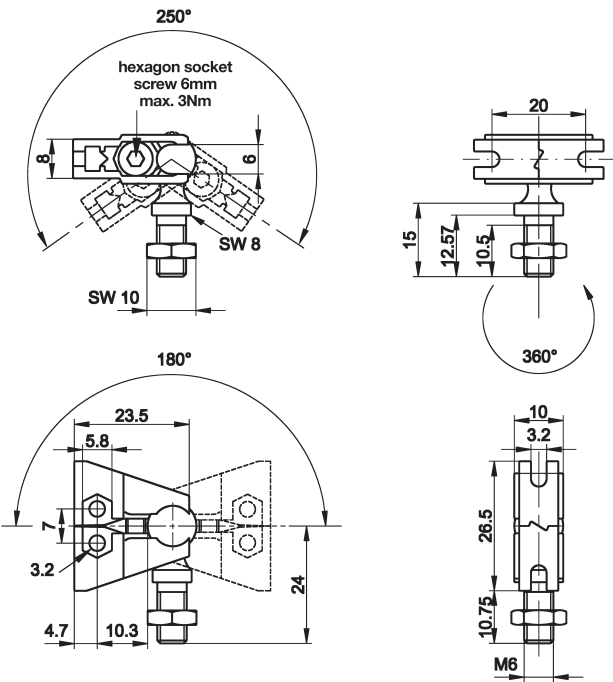
correction factors

material	factor
stainless steel (V2A)	approx. 0.7
brass (Ms)	approx. 0.4
aluminum (Al)	approx. 0.4
copper (Cu)	approx. 0.3

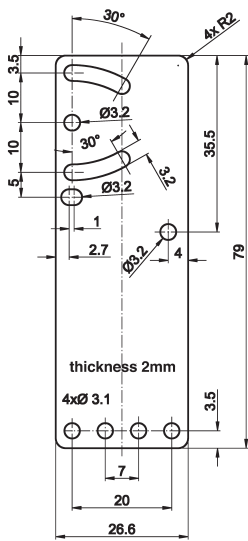
Correction factors indicate the change relating to the sensing range if materials other than St37 (steel) are used. The change in the sensing range depends on the type, characteristics (internal structure), size and the geometry of the material that is to be detected. In order to assess the approximate sensing range on the materials which differ from St37, the value for St37 has to be multiplied by the appropriate correction factor.

mounting accessories (universal holder) AY000118

consisting of base module



... and fitting panel



ACCESSORIES

article-no.	description	note
AY000088	base module *	jaw: stainless steel, ball pin: galvanized steel
AY000118	mounting kit for sensors lx16, lx26	stainless steel

* The AY000088 base module is contained in every mounting kit.
Material of bolts and nuts: galvanized steel

This data sheet contains the standard versions only. Kindly request the availability of other output- and connection functions.

We will be pleased to supply the matching cable socket for your devices with connector. Please refer to the list in catalog chapter „accessories“ under „cable sockets **ipf-SENSORFLEX®**“ or search our website for „VK“.

Warning: Never use these devices in applications where the safety of a person depends on their functionality.