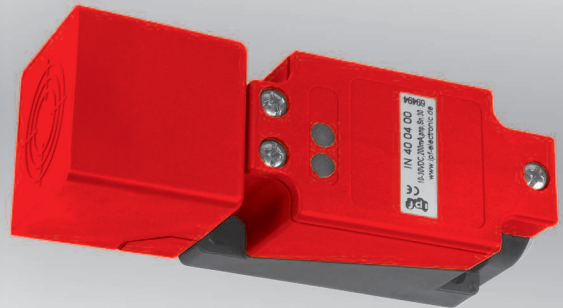
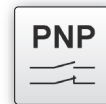


dimensions	40 x 40 x 118mm	
	40 x 40 x 120mm	
flush	switching distance	15mm
non-flush	switching distance	30 ... 40mm



- ✓ shock-resistant plastic housing
- ✓ DC-devices short-circuit and reverse polarity protected
- ✓ switching state display with yellow LED
- ✓ operating voltage display with green LED
- ✓ M20-thread for cable gland and connection in the junction box
- ✓ high switching frequency and switching distances

active surface flexible adjustable connector or terminal connection



description

In each case, these inductive proximity switches consist of three functional parts. The bottom part with the cable insert for M20 screw connections and the connection terminals can be fastened regardless of the rest of the electronics. The unit can be conveniently fitted to a machine using the feedthrough holes on the base. Accordingly, the electronics module is only inserted from above and it is fixed with screws. This way, the active surface can still be adjusted in five different detection and/or approach directions by turning the head.

The modular construction of these sensors provide a whole range of applications and if necessary, the sensors can be exchanged very quickly without having to reconnect the connecting lead which is time consuming.

The fields of application of these inductive sensors cover all conceivable areas of automation technology.

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

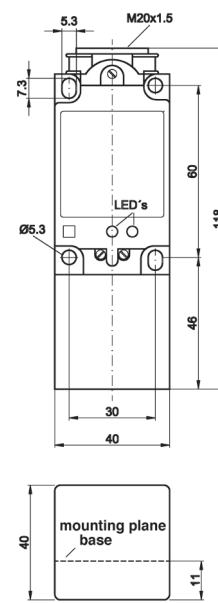
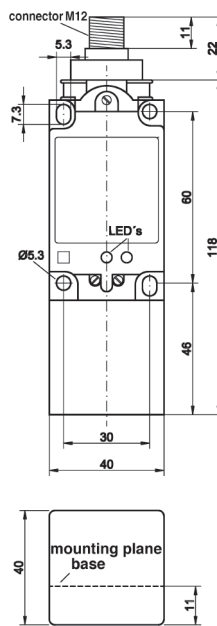
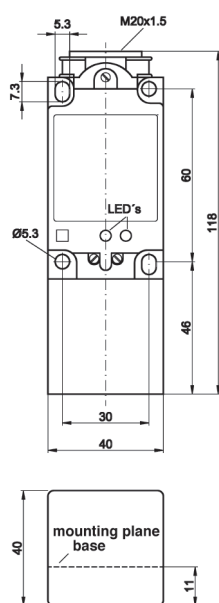
all kinds of vibrations.

For realizing the maximum switching distance, the size and characteristics of the object to be detected (standard target) should be taken into account.

application examples

- ▶ creep speed switches / stop switches for units of movement
- ▶ position switches in the feeding technology sector
- ▶ integration in machine parts subject to rough industrial environments
- ▶ checking the presence of metal parts with various dimensions
- ▶ detecting object heights, e.g. metal parts on conveyor belts
- ▶ detection of objects through the walls of non-metallic containers and tubes

article-no.	IB400400	IB400420	IB404300
switching distance (Sn)	15mm	15mm	15mm
mounting	flush	flush	flush
output	pnp, no/nc	pnp, no/nc	AC, no/nc
connection	terminals	M12-connector	terminals
article-no.	IB400100	IB400120	-
switching distance (Sn)	15mm	15mm	-
mounting	flush	flush	-
output	pnp, no	pnp, no	-
connection	terminals	M12-connector	-



TECHNICAL DATA

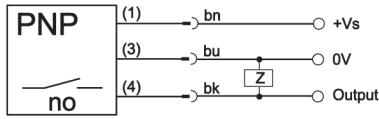
switching distance (Sn)	15mm	15mm	15mm
output signal	see above	see above	see above
operating voltage	10 ... 60V DC	10 ... 60V DC	20 ... 250V AC
current consumption (w/o load)	† 10mA	† 10mA	† 2mA
output current (max. load)	200mA	200mA	500mA
voltage drop (max. load)	2.8V DC	2.8V DC	5.0V AC
Norm measuring plate	acc. to EN 60947-5-2	acc. to EN 60947-5-2	acc. to EN 60947-5-2
hysteresis	typ. < 5%	typ. < 5%	typ. < 5%
repeat accuracy	*	*	*
correction factors (St37/Alu/Ms)	1.0 / 0.3 / -	1.0 / 0.3 / -	1.0 / 0.3 / -
correction factors (stainl. steel/Cu)	0.75 / 0.25	0.75 / 0.25	0.75 / 0.25
switching frequency	150Hz	150Hz	20Hz
display (signal)	yellow LED	yellow LED	yellow LED
display (operation)	green LED	green LED	green LED
short-circuit protection	+	+	-
reverse polarity protection	+	+	+
dimensions	40x40x118mm	40x40x118mm	40x40x118mm
housing material	PBT plastic	PBT plastic	PBT plastic
material (front cap)	PBT plastic	PBT plastic	PBT plastic
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
degree of protection (EN 60529)	IP68	IP67	IP68
connection	terminals	M12-connector, 4-pin	terminals
connection accessories	-	e.g. VK200325	-

* not specified

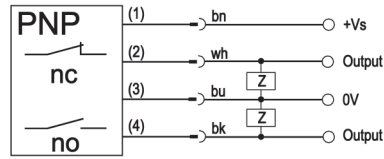
article-no.	IN400400	IN400420	IN404300	IN420306
switching distance (Sn)	30mm	30mm	30mm	40mm
mounting	non-flush	non-flush	non-flush	non-flush
output	pnp, no/nc	pnp, no/nc	AC, no/nc	pnp, no/nc
connection	terminals	M12-connector	terminals	terminals
article-no.	IN400100	-	-	-
switching distance (Sn)	30mm	-	-	-
mounting	non-flush	-	-	-
output	pnp, no	-	-	-
connection	terminals	-	-	-
TECHNICAL DATA				
switching distance (Sn)	30mm	30mm	30mm	40mm
output signal	see above	see above	see above	see above
operating voltage	10 ... 60V DC	10 ... 60V DC	20 ... 250V AC	10 ... 65V AC
current consumption (w/o load)	† 10mA	† 10mA	† 2mA	† 20mA
output current (max. load)	200mA	200mA	500mA	300mA
voltage drop (max. load)	2.8V DC	2.8V DC	5.0V AC	2.5V DC
Norm measuring plate	acc. to EN 60947-5-2	acc. to EN 60947-5-2	acc. to EN 60947-5-2	acc. to EN 60947-5-2
hysteresis	typ. < 5%	typ. < 5%	typ. < 5%	< 20%
repeat accuracy	*	*	*	1.5mm
correction factors (St37/Alu/Ms)	1.0 / 0.45 / -	1.0 / 0.45 / -	1.0 / 0.45 / -	1.0 / 0.5 / -
correction factors (stainl. steel/Cu)	0.8 / 0.4	0.8 / 0.4	0.8 / 0.4	0.8 / 0.4
switching frequency	100Hz	100Hz	20Hz	20Hz
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	green LED	green LED	green LED	green LED
short-circuit protection	+	+	-	+
reverse polarity protection	+	+	+	+
dimensions	40x40x118mm	40x40x118mm	40x40x118mm	40x40x120mm
housing material	PBT plastic	PBT plastic	PBT plastic	PBT plastic
material (front cap)	PBT plastic	PBT plastic	PBT plastic	PBT plastic
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	-25 ... +85°C
degree of protection (EN 60529)	IP68	IP67	IP68	IP65
connection	terminals	M12-connector, 4-pin	terminals	terminals
connection accessories	-	e.g. VK200325	-	-
* not specified				

connection

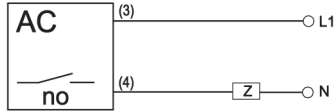
terminals, connector device, pnp no



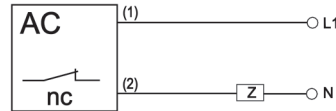
terminals, connector device, pnp no/nc



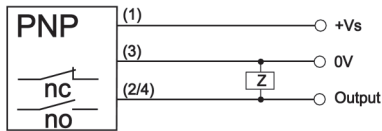
terminals AC no



terminals AC nc



IN420306 terminals, pnp no/nc selectable



wire colors: bn = brown (1), wh = white (2), bu = blue (3), bk = black (4)

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

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.

This data sheet as well as your personal contact can be found at www.ipf-electronic.com

