

dimensions \varnothing 6.5mm
 M8x1
 M12x1
 M18x1

semi-flush sensing range 2 ... 6mm



- ✓ active face made of metall
- ✓ pressure resistant up to 20bar
- ✓ high sensing ranges on steel, brass and aluminium
- ✓ outstanding impermeability, active face IP 68
- ✓ LED display for assured switching range

**all metal housing made of steel
 improved EMC resistance**



description

An important feature of these sensors is the one-piece stainless steel housing. This means that the active surface of the devices is sealed against fluids and gases, to which the whole housing material is resistant. They are much more resistant to mechanical stress than conventional proximity switches.

In order to achieve the maximum sensing range, care should be taken with regard to the size of the object (standard target) and its surface characteristics (flat surface). It is recommended to leave the devices projecting out of the metal carrier material by approx. 1mm.

Correction factors state the change in the sensing range, if

materials other than steel (1.0037) are used. This factor depends on the type, characteristics (internal structure), size and geometry of the material that the object to be detected is made from. In order to assess the approximate sensing range on materials that differ from steel, the value for steel has to be multiplied by the appropriate correction factor.

application examples

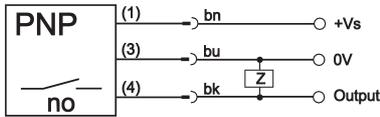
- ▶ operation in extreme environments (oil, dirt, pressure)
- ▶ use where great demands are made in terms of reliability and longevity

article-no.	IC060173	IC080173	IC120123	IC180123
sensing range	2mm	2mm	4mm	6mm
version	Ø 6.5mm	M8x1	M12x1	M18x1

TECHNICAL DATA				
sensing range (sn)	2mm	2mm	4mm	6mm
mounting	semi-flush	semi-flush	semi-flush	semi-flush
pressure resistance	< 20bar	< 20bar	< 20bar	< 20bar
output signal	pnp, no	pnp, no	pnp, no	pnp, no
operating voltage	10 ... 30V DC			
current consumption (w/o load)	≤ 20mA	≤ 20mA	≤ 14mA	≤ 14mA
output current (max. load)	200mA	200mA	200mA	200mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
norm target	9x9x1mm, FE360	9x9x1mm, FE360	18x18x1mm, FE360	30x30x1mm, FE360
hysteresis (real sensing range sr)	2 ... 20%	2 ... 20%	2 ... 20%	2 ... 20%
correction factors (alu / copper)	0.45 / 0.35	0.45 / 0.35	0.45 / 0.35	0.45 / 0.35
correction factors (stainl. steel)	0.55	0.55	0.55	0.55
sampling frequency	150Hz	150Hz	100Hz	100Hz
status display	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
design	Ø 6.5mm	M8x1	M12x1	M18x1
length (thread/complete)	- / 46mm	34mm / 46mm	35mm / 50mm	45mm / 60mm
housing material	V4A	V4A	V4A	V4A
temperature range	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
system of protection (EN 60529)	active face / sensor IP 68/IP67			
connection	M8-connector, 3-pin	M8-connector, 3-pin	M12-connector, 3-pin	M12-connector, 3-pin
connection accessories	e.g. VK200071	e.g. VK200071	e.g. VK200021	e.g. VK200021
mount. accessories (uni-bracket)	-	AY000115	AY000115	AY000117
mounting accessories (clip)	AY000046	-	-	-

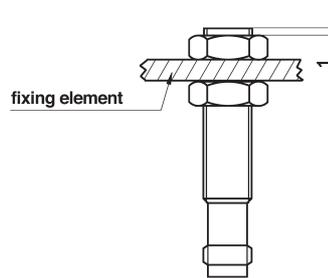
connection

Stecker-Geräte



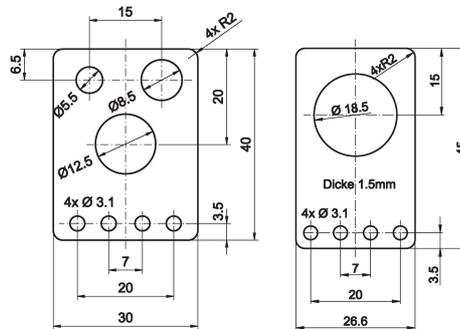
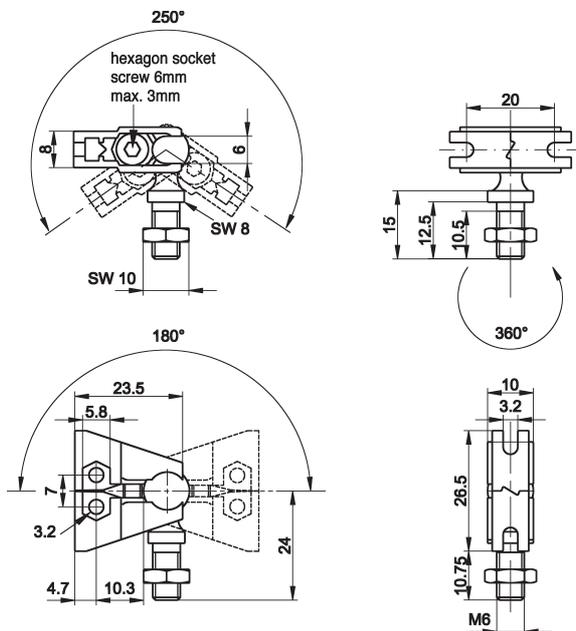
wire colors: bn = brown, wh = white, bu = blue, bk = black

mounting



mounting accessories (Uni-bracket) AY0000115, AY000117
with base modul

...and fitting panel



ACCESSORIES

article-no.	description	material
AY000046	quick clip Ø 6.5mm	PA6/steel zincd
AY000088	base modul *	flanges: stainless steel, ball pin: steel zincd
AY000115	fastening-parts kit for sensors M5, M8, M12	stainless steel
AY000117	fastening-parts kit for sensors M18	stainless steel

* The base module **AY000088** is included in every fastening-parts kit.
Material of the screws and nuts: steel zincd

The list of articles 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.

You also find this data sheet, as well as contact details under www.ipf-electronic.com

notes

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