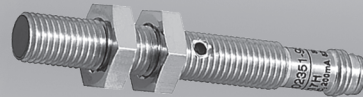
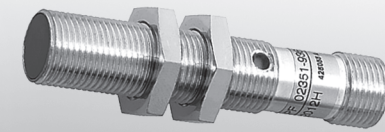
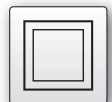


design	Ø4mm M5 x 0.5 M8 x 1 M12 x 1	
flush	sensing range	2.5mm
semi-flush	sensing range	4 to 8mm



- ✓ high lifetime thanks to large sensing range
- ✓ stainless steel housing or chrome-plated brass
- ✓ integrated amplifier
- ✓ easy setting thanks to LED display
- ✓ connection with cable, M8- or M12-connector

**super-plus, up to 4-way
the norm sensing range**



description

ipf electronic's Super Plus series of inductive proximity switches are characterized by especially long sensing ranges. The devices work in a way which is similar to conventional proximity switches.

However the oscillator and the downstream signal evaluation unit are configured differently, whereby significantly better stability is achieved in terms of temperature. This enables the switch-point to be rescheduled so that far greater sensing ranges are achieved.

Super Plus series devices are preferably put to use in applications where a long sensing range has to be achieved, but space does not allow for a correspondingly large standard device. Further fields of application can be found where the limited sensing range of standard sensors do not guarantee reliable operation, e.g. when detecting sheet metal parts with large mechanical tolerances.

For example, the range of applications for these inductive sensors includes system and machine engineering, the

automobile industry, transportation and packaging technology, printing and paper processing, chemical and processing industries, as well as many others.

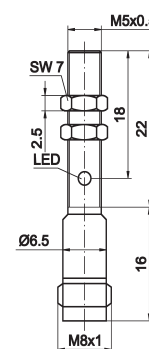
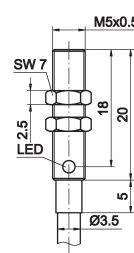
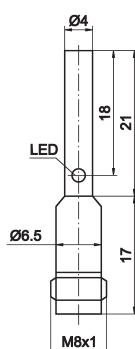
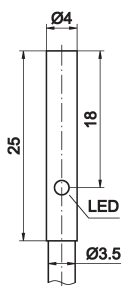
For attaining the maximum sensing range, attention should be paid concerning the size of the object (norm target) and the kind of surface (level surface). For the reliable operation of the devices, it is essential that the installation conditions on page 5 are adhered to.

application examples

- ▶ integration in machine parts (in automation technology)
- ▶ 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.	IBR4010H	IBR4017H	IB05010H	IB05017H
sensing range (Sn)	2.5mm	2.5mm	2.5mm	2.5mm
output signal	pnp, no	pnp, no	pnp, no	pnp, no
mounting	flush	flush	flush	flush
connection	cable	M8-connector	cable	M8-connector
article-no.	*	*	*	*
output signal	pnp, nc	pnp, nc	pnp, nc	pnp, nc
article-no.	*	*	*	*
output signal	npn, no	npn, no	npn, no	npn, no
article-no.	*	*	*	*
output signal	npn, nc	npn, nc	npn, nc	npn, nc

* on request



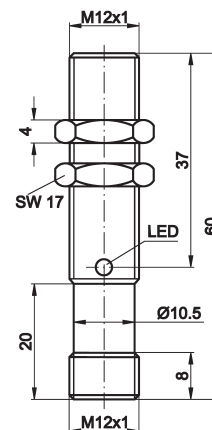
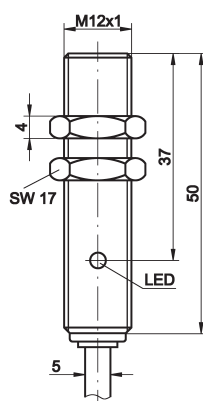
TECHNICAL DATA

sensing range (Sn)	2.5mm	2.5mm	2.5mm	2.5mm
output signal	see above	see above	see above	see above
operating voltage	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 10mA	≤ 10mA	≤ 10mA	≤ 10mA
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 trimming plate	7.5x7.5x1.0mm	7.5x7.5x1.0mm	7.5x7.5x1.0mm	7.5x7.5x1.0mm
hysteresis (of Sn) typical	< 8%	< 8%	< 8%	< 8%
repeat accuracy	0.03mm	0.03mm	0.03mm	0.03mm
correction factors (steel/aluminium/brass)	1.0/0.28/0.36	1.0/0.28/0.36	1.0/0.33/0.42	1.0/0.33/0.42
correction factors (stainless steel/copper)	0.6/0.25	0.6/0.25	0.67/0.3	0.67/0.3
sampling frequency	800Hz	800Hz	800Hz	800Hz
status display	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
design	Ø4mm	Ø4mm	M5x0.5	M5x0.5
length (thread/complete)	-/25mm	-/38mm	20mm/25mm	20mm/38mm
housing material	stainless steel	stainless steel	stainless steel	stainless steel
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
system of protection (EN 60529)	IP67	IP67	IP67	IP67
connection	2m PVC-cable, 3-wire	M8-connector, 3-pin	2m PVC-cable, 3-wire	M8-connector, 3-pin
connection accessories	-	e.g. VK200075 2m, PUR, straight	-	e.g. VK200075 2m, PUR, straight
mounting accessories	e.g. AY000044	e.g. AY000044	e.g. AY000045	e.g. AY000045

article-no.	IB08010H	IB08012H	IB08017H
sensing range (Sn)	4mm	4mm	4mm
output signal	pnp, no	pnp, no	pnp, no
mounting	semi-flush	semi-flush	semi-flush
connection	cable	M12-connector	M8-connector
article-no.	*	*	*
output signal	pnp, nc	pnp, nc	pnp, nc
article-no.	*	*	*
output signal	npn, no	npn, no	npn, no
article-no.	*	*	*
output signal	npn, nc	npn, nc	npn, nc
* on request			
TECHNICAL DATA			
sensing range (Sn)	4mm	4mm	4mm
output signal	see above	see above	see above
operating voltage	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 10mA	≤ 10mA	≤ 10mA
output current (max. load)	200mA	200mA	200mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC
norm trimming plate	16x16x1mm	16x16x1mm	16x16x1mm
hysteresis (of Sn) typical	< 10%	< 10%	< 10%
repeat accuracy	0.2mm	0.2mm	0.2mm
correction factors (steel/aluminium/brass)	1.0/0.25/0.35	1.0/0.25/0.35	1.0/0.25/0.35
correction factors (stainless steel/copper)	0.65/0.22	0.65/0.22	0.65/0.22
sampling frequency	500Hz	500Hz	500Hz
status display	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+
reverse polarity protection	+	+	+
design	M8x1	M8x1	M8x1
length (thread/complete)	45mm/45mm	44mm/66mm	45mm/60mm
housing material	chrome-plated brass	chrome-plated brass	chrome-plated brass
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
system of protection (EN 60529)	IP67	IP67	IP67
connection	2m PVC-cable, 3-wire	M12-connector, 3-pin	M8-connector, 3-pin
connection accessories	-	e.g. VK200025 2m, PUR, straight	e.g. VK200075 2m, PUR, straight
mounting accessories	e.g. AY000047	e.g. AY000047	e.g. AY000047

article-no.	IB12010H	IB12012H
sensing range (Sn)	8mm	8mm
output signal	pnp, no	pnp, no
mounting	semi-flush	semi-flush
connection	cable	M12-connector
article-no.	*	*
output signal	pnp, nc	pnp, nc
article-no.	*	*
output signal	npn, no	npn, no
article-no.	*	*
output signal	npn, nc	npn, nc

* on request

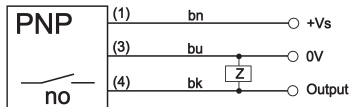


TECHNICAL DATA

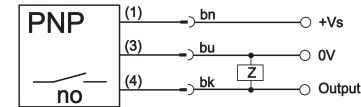
sensing range (Sn)	8mm	8mm
output signal	see above	see above
operating voltage	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 10mA	≤ 10mA
output current (max. load)	200mA	200mA
voltage drop (max. load)	2.0V DC	2.0V DC
norm trimming plate	32x32x1mm	32x32x1mm
hysteresis (of Sn) typical	< 10%	< 10%
repeat accuracy	0.4mm	0.4mm
correction factors (steel/aluminium/brass)	1.0/0.27/0.36	1.0/0.27/0.36
correction factors (stainless steel/copper)	0.67/0.23	0.67/0.23
sampling frequency	400Hz	400Hz
status display	yellow LED	yellow LED
short-circuit protection	+	+
reverse polarity protection	+	+
design	M12x1	M12x1
length (thread/complete)	50mm/50mm	40mm/60mm
housing material	chrome-plated brass	chrome-plated brass
operating temperature	-25 ... +70°C	-25 ... +70°C
system of protection (EN 60529)	IP67	IP67
connection	2m PVC-cable, 3-wire	M12-connector, 3-pin
connection accessories	-	e.g. VK200025 2m, PUR, straight
mounting accessories	e.g. AY000049	e.g. AY000049

connection

cable device



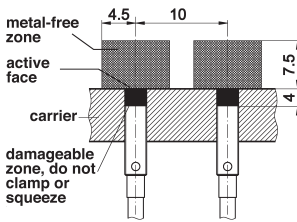
connector device



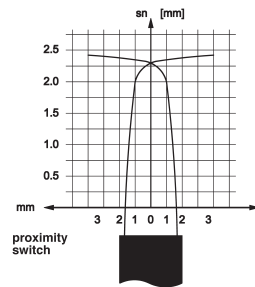
wire colors: bn = brown (1), bu = blue (3), bk = black (4)

IBR401XH

flush mounting

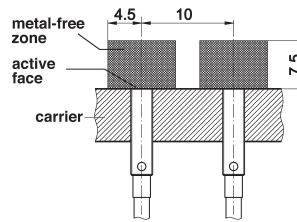


response curve

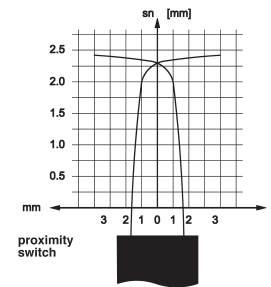


IB0501XH

flush mounting



response curve

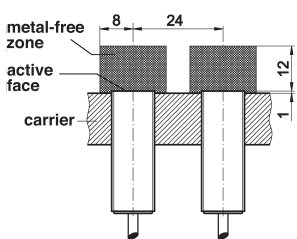


correction factors

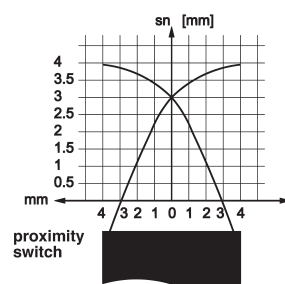
steel	1.0	steel	1.0
stainless steel	0.60	stainless steel	0.67
aluminium	0.28	aluminium	0.33
copper	0.25	copper	0.30
brass	0.36	brass	0.42

IB0801XH

semi-flush mounting

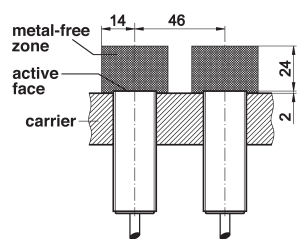


response curve

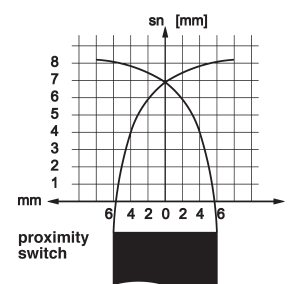


IB1201XH

semi-flush mounting



response curve



correction factors

steel	1.0	steel	1.0
stainless steel	0.65	stainless steel	0.67
aluminium	0.25	aluminium	0.27
copper	0.22	copper	0.23
brass	0.35	brass	0.36

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.

notes

export division

Kalver Straße 27
D-58515 Lüdenscheid

Fon +49 (0) 2351 / 98597-0
Fax +49 (0) 2351 / 98597-29