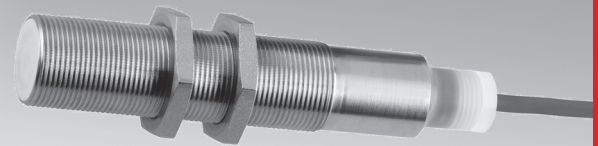
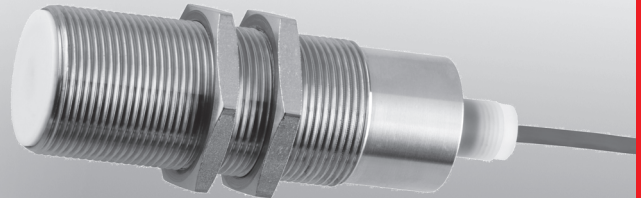
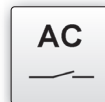
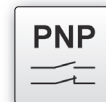


design	M12x1 M18x1 M30x1.5	
flush	sensing range	2 to 10mm
non-flush	sensing range	4 to 15mm



- ✓ hoseproof and resistant to permanent submersion
- ✓ resistant to acids and alkaline solutions
- ✓ insensitive to rapid temperature changes from -25°C to +110°C
- ✓ stainless steel (V4A) housing, teflon front cap
- ✓ M18 and M30 with LED display
- ✓ versions with direct or alternating current
- ✓ sampling frequency 1000Hz

**unaffected by atmospheric changes  
system of protection IP68 and IP69k**



**description**

These *ipf electronic* inductive proximity switches remain unaffected by atmospheric changes, and are ideal for applications in environments with constantly changing temperatures and high humidity such as car washes.

A high corrosion resistance plus a simultaneous mechanical resistance is obtained by combining PTFE with titanium stabilized stainless steel.

The integrated LEDs shine through the cap on the cable side. A Viton O-ring in the front cap and the compound of the

connection cable inside the housing provide for an excellent impermeability.

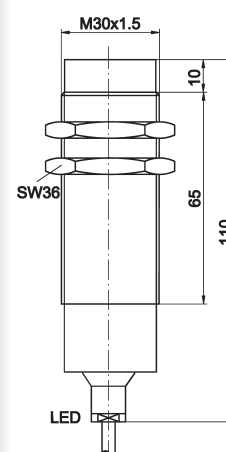
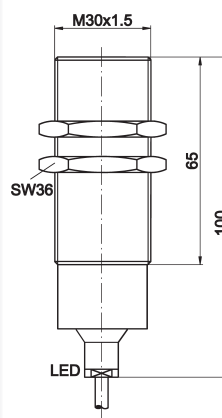
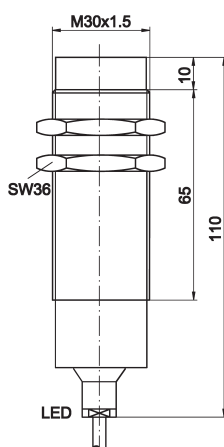
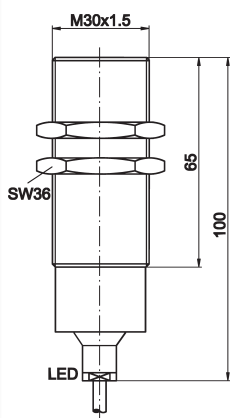
**application examples**

- ▶ application in washer systems
- ▶ application in conditioning cabinets
- ▶ food, pharmaceutical industry
- ▶ application under aggressive environmental conditions
- ▶ roll stands of cold roll machines

article-no.	IB1201K0	IN1201K0
sensing range (Sn)	2mm	4mm
mounting	flush	non-flush
output	pnp, no	pnp, no
<b>TECHNICAL DATA</b>		
sensing range (Sn)	2mm	4mm
output signal	pnp, no	pnp, no
operating voltage	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 4mA	≤ 4mA
output current (max. load)	200mA	200mA
voltage drop (max. load)	2.0V DC	2.0V DC
norm trimming plate	according to EN 60947-5-2	according to EN 60947-5-2
hysteresis (of Sr) typical	< 10%	< 10%
repeat accuracy (of Sr) typical	< 3%	< 3%
sampling frequency	1kHz	1kHz
display (signal)	-	-
short-circuit protection	+	+
reverse polarity protection	+	+
design	M12x1mm	M12x1mm
housing material	stainless steel (1.4571)	stainless steel (1.4571)
front cap material	PTFE	PTFE
operating temperature	-25 ... +110°C	-25 ... +110°C
system of protection (EN 60529)	IP68/IP69K	IP68/IP69K
connection	2m FEP-cable 3-wire	2m FEP-cable 3-wire
mounting accessories	<b>AY000099</b>	<b>AY000099</b>

artikel-no.	IB1804K0	IN1804K0	IB1841K0	IN1841K0
sensing range (Sn)	5mm	7mm	5mm	7mm
mounting	flush	non-flush	flush	non-flush
output	pnp, no / nc	pnp, no / nc	AC, no	AC, no
<b>TECHNICAL DATA</b>				
sensing range (Sn)	5mm	7mm	5mm	7mm
output signal	pnp, no / nc	pnp, no / nc	AC, no	AC, no
operating voltage	10 ... 30V DC	10 ... 30V DC	20 ... 250V AC	20 ... 250V AC
current consumption (w/o load)	≤ 4mA	≤ 4mA	≤ 2.5mA	≤ 2.5mA
minimum load current	-	-	< 5mA	< 5mA
output current (max. load)	200mA	200mA	400mA	400mA
voltage drop (max. load)	2.0V DC	2.0V DC	5.0V AC	5.0V AC
norm trimming plate	according to EN 60947-5-2	according to EN 60947-5-2	according to EN 60947-5-2	according to EN 60947-5-2
hysteresis (of Sr) typical	< 10%	< 10%	< 10%	< 10%
repeat accuracy (of Sr) typical	< 3%	< 3%	< 3%	< 3%
sampling frequency	1kHz	1kHz	25Hz	25Hz
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
design	M18x1mm	M18x1mm	M18x1mm	M18x1mm
housing material	stainless steel (1.4571)	stainless steel (1.4571)	stainless steel (1.4571)	stainless steel (1.4571)
front cap material	PTFE	PTFE	PTFE	PTFE
operating temperature	-25 ... +110°C	-25 ... +110°C	-25 ... +110°C	-25 ... +110°C
system of protection (EN 60529)	IP68/IP69K	IP68/IP69K	IP68/IP69K	IP68/IP69K
connection	2m FEP-cable 4-wire	2m FEP-cable 4-wire	2m FEP-cable 3-wire	2m FEP-cabel 3-wire
mounting accessories	<b>AY000100</b>	<b>AY000100</b>	<b>AY000100</b>	<b>AY000100</b>

article-no.	IB3004K0	IN3004K0	IB3041K0	IN3041K0
sensing range (Sn)	10mm	15mm	10mm	15mm
mounting	flush	non-flush	flush	non-flush
output	pnp, no / nc	pnp, no / nc	AC, no	AC, no

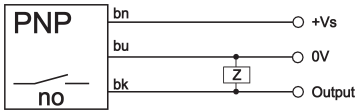


### TECHNICAL DATA

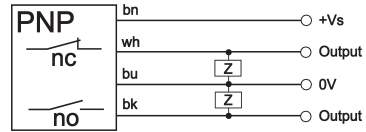
sensing range (Sn)	10mm	15mm	10mm	15mm
output signal	pnp, no / nc	pnp, no / nc	AC, no	AC, no
operating voltage	10 ... 30V DC	10 ... 30V DC	20 ... 250V AC	20 ... 250V AC
current consumption (w/o load)	≤ 4mA	≤ 4mA	≤ 2.5mA	≤ 2.5mA
minimum load current	-	-	< 5mA	< 5mA
output current (max. load)	200mA	200mA	400mA	400mA
voltage drop (max. load)	2.0V DC	2.0V DC	5.0V AC	5.0V AC
norm trimming plate	according to EN 60947-5-2	according to EN 60947-5-2	according to EN 60947-5-2	according to EN 60947-5-2
hysteresis (of Sr) typical	< 10%	< 10%	< 10%	< 10%
repeat accuracy (of Sr) typical	< 3%	< 3%	< 3%	< 3%
sampling frequency	1kHz	1kHz	25Hz	25Hz
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
design	M30x1.5mm	M30x1.5mm	M30x1.5mm	M30x1.5mm
housing material	stainless steel (1.4571)	stainless steel (1.4571)	stainless steel (1.4571)	stainless steel (1.4571)
front cap material	PTFE	PTFE	PTFE	PTFE
operating temperature	-25 ... +110°C	-25 ... +110°C	-25 ... +110°C	-25 ... +110°C
system of protection (EN 60529)	IP69K	IP69K	IP69K	IP69K
connection	2m FEP-cable 4-wire	2m FEP-cable 4-wire	2m FEP-cable 3-wire	2m FEP-cable 3-wire
mounting accessories	<b>AY000101</b>	<b>AY000101</b>	<b>AY000101</b>	<b>AY000101</b>

### connection

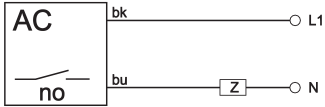
cable device DC M12



cable device DC M18, M30



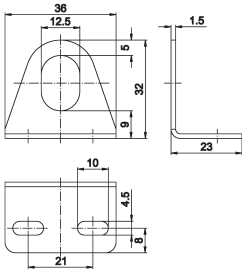
cable device AC M18, M30



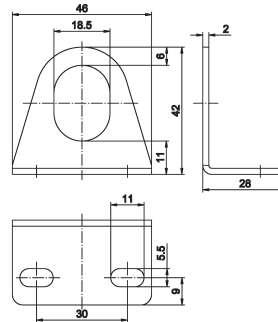
**wire colors:** bn = brown (1), wh = white (2), bu = blue (3), bk = black (4)

### mounting material

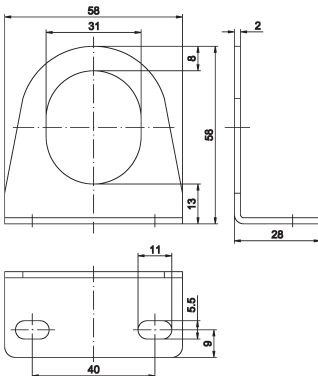
**AY000099** for M12x1, stainless steel



**AY000100** for M18x1, stainless steel



**AY000101** for M30x1.5, stainless steel



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

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

## 2000 unaffected by atmospheric changes

### notes

#### export division

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