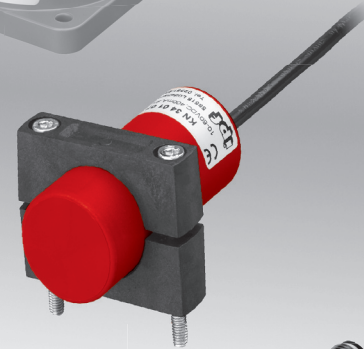
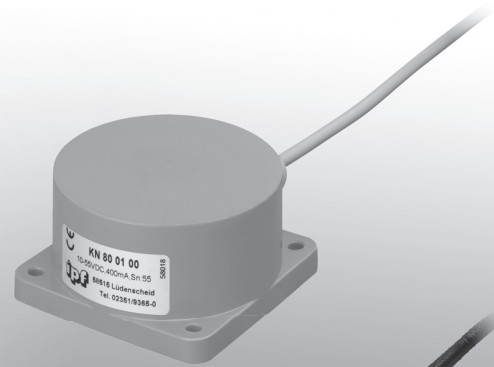


flush, non-flush

design	sensing range Sn [mm]											flush	non-flush	length [mm]	11 ... 30V DC / pnp	10 ... 35V DC / pnp	10 ... 55V DC / pnp	10 ... 60V DC / pnp	20 ... 250V AC / pnp	48 ... 250V AC / pnp	cable	M8-connector	M12-connector	page									
	1.5	3	6	8	10	15	20	25	30	70	120																						
M8x1	X											X	X	42 ... 54	X					X	X		4										
M8x1		X										X	X	42 ... 54	X					X	X		4										
M12x1			X									X	X	50 ... 60	X					X	X		5										
M12x1					X							X	X	50 ... 60	X					X	X		6										
M18x1					X							X	X	70 ... 84	X					X	X		7										
M18x1				X	X	X						X	X	70 ... 84	X		X	X		X	X		8-9										
Ø20mm						X						X	X	79 ... 94			X			X	X		9										
M30x1.5						X		X				X	X	70 ... 82	X		X			X	X		10-11										
M30x1.5							X		X			X	X	70 ... 90	X		X	X		X	X		11-12										
Ø34mm									X			X	X	81			X	X		X	X		13										
Ø80mm										X		X	X	40		X	X			X			14										
Ø100mm											X	X	X	40		X	X			X			14										
cable sockets																											15						
connection, mounting material																																	15

design	M8 x 1 M12 x 1 M18 x 1 Ø20 M30 x 1.5 Ø34 Ø80 Ø100	
flush	operating range	up to 25mm
non-flush	operating range	up to 120mm



- ✓ metal sleeve stainless steel, nickel-plated brass or plastic housing
- ✓ LED display for signal
- ✓ integrated amplifier
- ✓ high sampling frequency and sensing ranges
- ✓ connection with cable, M8- or M12-connector

sensing range adjustable with potentiometer



description

A capacitive sensor's function is based on the changes that are made to the electric field in the environs in front of its active zone. The sensor works using an oscillator. The capacity between the active electrodes and the electric earth potential is measured.

Through the approach of a metallic or non-metallic material to the sensor's active zone, the capacity becomes larger and as such, influences the oscillation amplitude of the oscillator.

Through this, the trigger step which is downstream of the oscillator is tilted und and this causes the switching amplifier in the sensor to change its initial state.

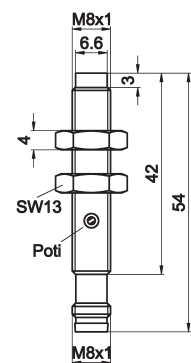
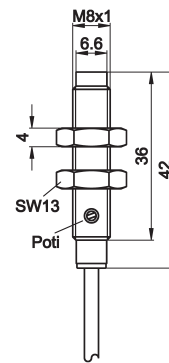
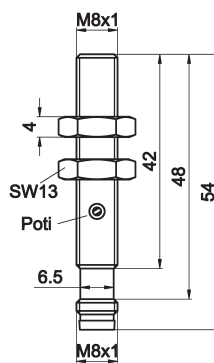
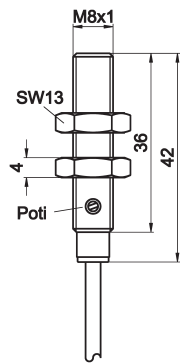
All sensors have a potentiometer through which the selected sensing range can be set. Capacitive sensors react to metals and non-metals which through approach to the

active surface, exceed a certain capacity. These capacitive sensors are used to recognize objects and counting tasks as well as all types of filling level monitoring associated with solid materials (e.g. powder, granules, pellets, etc.) and fluid materials (e.g. water, oil, hot glue, pastes, acids, etc.).

application examples

- ▶ 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.	KB080100	KB080170	KN080100	KN080170
operating range	0.1 ... 1.5mm	0.1 ... 1.5mm	0.1 ... 3.0mm	0.1 ... 3.0mm
output signal	pnp, no	pnp, no	pnp, no	pnp, no
mounting	flush	flush	non-flush	non-flush
connection	cable	M8-connector	cable	M8-connector



TECHNICAL DATA

sensing range	0.1 ... 1.5mm	0.1 ... 1.5mm	0.1 ... 3.0mm	0.1 ... 3.0mm
output signal	pnp, no	pnp, no	pnp, no	pnp, no
operating voltage	11 ... 30V DC	11 ... 30V DC	11 ... 30V DC	11 ... 30V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	50mA	50mA	50mA	50mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	100Hz	100Hz	100Hz	100Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M8x1	M8x1	M8x1	M8x1
length (thread/complete)	36mm / 42mm	42mm / 54mm	33mm / 42mm	39mm / 54mm
housing material	stainless steel	stainless steel	stainless steel	stainless steel
front cap material	PTFE	PTFE	PTFE	PTFE
operating temperature	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C
system of protection (EN 60529)	IP65	IP65	IP65	IP65
connection	2m PVC cable, 3-wire	M8-connector, 3-pin	2m PVC cable, 3-wire	M8-connector, 3-pin
connection accessories	-	e.g. VK200071 , 2m PUR, angular	-	e.g. VK200071 , 2m PUR, angular
mounting accessories (clip)	AY000047	AY000047	AY000047	AY000047

article-no.	KB120100	KB120120	KB120400	KB120420
operating range	0 ... 6mm	0 ... 6mm	0 ... 6mm	0 ... 6mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
mounting	flush	flush	flush	flush
connection	cable	M12-connector	cable	M12-connector
TECHNICAL DATA				
sensing range	0 ... 6mm	0 ... 6mm	0 ... 6mm	0 ... 6mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
operating voltage	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	250mA	250mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	500Hz	500Hz	500Hz	500Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	-	-	green LED	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M12x1	M12x1	M12x1	M12x1
length (thread/complete)	37mm / 50mm	40mm / 60mm	37mm / 60mm	40mm / 60mm
housing material	stainless steel	stainless steel	stainless steel	stainless steel
front cap material	PTFE	PTFE	PTFE	PTFE
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	M12-connector, 3-pin	2m PVC cable, 4-wire	M12-connector, 3-pin
connection accessories	-	e.g. VK200021 , 2m PUR, angular	-	e.g. VK200321 , 2m PUR, angular
mounting accessories (clip)	AY000049	AY000049	AY000049	AY000049

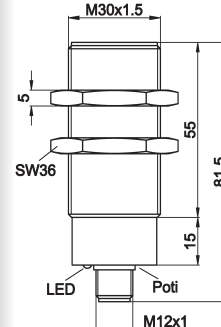
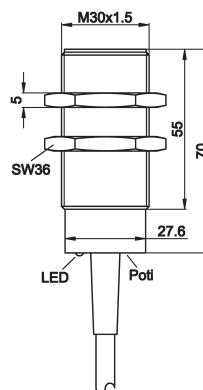
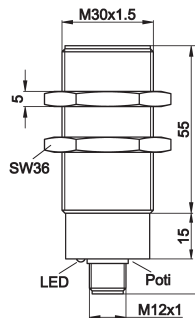
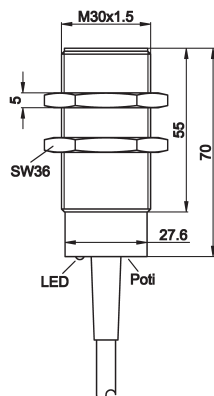
article-no.	KN120100	KN120120	KN120400	KN120420
operating range	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
mounting	non-flush	non-flush	non-flush	non-flush
connection	cable	M12-connector	cable	M12-connector
TECHNICAL DATA				
sensing range	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
operating voltage	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	250mA	250mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	50Hz	50Hz	50Hz	50Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	-	-	green LED	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M12x1	M12x1	M12x1	M12x1
length (thread/complete)	45mm / 45mm	32mm / 60mm	32mm / 60mm	32mm / 60mm
housing material	stainless steel	stainless steel	stainless steel	stainless steel
front cap material	PTFE	PTFE	PTFE	PTFE
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	M12-connector, 3-pin	2m PVC cable, 4-wire	M8-connector, 4-pin
connection accessories	-	e.g. VK200021 , 2m PUR, angular	-	e.g. VK200321 , 2m PUR, angular
mounting accessories (clip)	AY000049	AY000049	AY000049	AY000049

article-no.	KB180100	KB180120	KB180400	KB180420
operating range	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
mounting	flush	flush	flush	flush
connection	cable	M12-connector	cable	M12-connector
TECHNICAL DATA				
sensing range	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm	0.5 ... 10mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
operating voltage	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	400mA	400mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	300Hz	300Hz	300Hz	300Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	-	-	green LED	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M18x1	M18x1	M18x1	M18x1
length (thread/complete)	55mm / 70mm	55mm / 84mm	55mm / 70mm	55mm / 84mm
housing material	nickel-plated brass	nickel-plated brass	nickel-plated brass	nickel-plated brass
front cap material	PTFE	PTFE	PTFE	PTFE
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	M12-connector, 3-pin	2m PVC cable, 4-wire	M12-connector, 4-pin
connection accessories	-	e.g. VK200021 , 2m PUR, angular	-	e.g. VK200321 , 2m PUR, angular
mounting accessories (clip)	AY000051	AY000051	AY000051	AY000051

article-no.	KN180100	KN180120	KN180400	KN180420
operating range	0.5 ... 15mm	0.5 ... 15mm	0.5 ... 15mm	0.5 ... 15mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
mounting	non-flush	non-flush	non-flush	non-flush
connection	cable	M12-connector	cable	M12-connector
TECHNICAL DATA				
sensing range	0.5 ... 15mm	0.5 ... 15mm	0.5 ... 15mm	0.5 ... 15mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
operating voltage	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	400mA	400mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	50Hz	50Hz	50Hz	50Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	-	-	green LED	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M18x1	M18x1	M18x1	M18x1
length (thread/complete)	45mm / 45mm	45mm / 60mm	50mm / 50mm	44mm / 60mm
housing material	nickel-plated brass	nickel-plated brass	nickel-plated brass	nickel-plated brass
front cap material	PTFE	PTFE	PTFE	PTFE
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	M12-connector, 3-pin	2m PVC cable, 4-wire	M12-connector, 4-pin
connection accessories	-	e.g. VK200021 , 2m PUR, angular	-	e.g. VK200321 , 2m PUR, angular
mounting accessories (clip)	AY000051	AY000051	AY000051	AY000051

article-no.	KN180107	KN184107	KN200107	KN200177
operating range	1.0 ... 8.0mm	1.0 ... 8.0mm	3.5 ... 15mm	3.5 ... 15mm
output signal	pnp, no	AC, no	pnp, no	pnp, no
mounting	non-flush	non-flush	non-flush	non-flush
connection	cable	cable	cable	M8-connector
TECHNICAL DATA				
sensing range	1.0 ... 8.0mm	1.0 ... 8.0mm	3.5 ... 15mm	3.5 ... 15mm
output signal	pnp, no	AC, no	pnp, no	pnp, no
operating voltage	10 ... 60V DC	20 ... 250V AC	10 ... 60V DC	10 ... 60V DC
current consumption (w/o load)	≤ 20mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	200mA	200mA	200mA	200mA
voltage drop (max. load)	3.0V DC	10.0V AC	3.0V DC	3.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	25Hz	15Hz	25Hz	25Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
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	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M18x1	M18x1	Ø20mm	Ø20mm
length (thread/complete)	40mm / 81mm	40mm / 81mm	- / 81mm	- / 81mm
housing material	PBT	PBT	PBT	PBT
front cap 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
system of protection (EN 60529)	IP67	IP67	IP67	IP67 *
connection	2m PVC cable, 3-wire	2m PVC cable, 2-wire	2m PVC cable, 3-wire	M8-connector, 3-pin
connection accessories	-	-	-	e.g. VK200071 , 2m PUR, angular
mounting accessories (clip)	AY000051	AY000051	-	-
* only with screwed down cable socket				

article-no.	KB300100	KB300120	KB300400	KB300420
operating range	0.5 ... 25mm	0.5 ... 25mm	0.5 ... 25mm	0.5 ... 25mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
mounting	flush	flush	flush	flush
connection	cable	M12-connector	cable	M12-connector

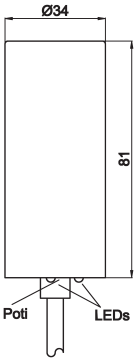
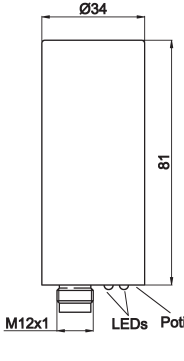
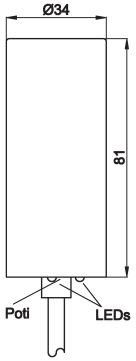


TECHNICAL DATA

sensing range	0.5 ... 25mm	0.5 ... 25mm	0.5 ... 25mm	0.5 ... 25mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
operating voltage	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
output current (max. load)	400mA	400mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	200Hz	200Hz	200Hz	200Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
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	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M30x1.5	M30x1.5	M30x1.5	M30x1.5
length (thread/complete)	55mm / 70mm	55mm / 82mm	55mm / 70mm	55mm / 82mm
housing material	nickel-plated brass	nickel-plated brass	nickel-plated brass	nickel-plated brass
front cap material	PTFE	PTFE	PTFE	PTFE
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	M12-connector, 3-pin	2m PVC cable, 4-wire	M12-connector, 4-pin
connection accessories	-	e.g. VK200021 , 2m PUR, angular	-	e.g. VK200321 , 2m PUR, angular
mounting accessories (clip)	AY000061	AY000061	AY000061	AY000061

article-no.	KB304100	KN300100	KN300400	KN300420
operating range	3.0 ... 15mm	1.0 ... 30mm	1.0 ... 30mm	1.0 ... 30mm
output signal	AC, no	npn, no	npn, no/nc	npn, no/nc
mounting	flush	non-flush	non-flush	non-flush
connection	cable	cable	cable	M12-connector
TECHNICAL DATA				
sensing range	3.0 ... 15mm	1.0 ... 30mm	1.0 ... 30mm	1.0 ... 30mm
output signal	npn, no	npn, no	npn, no/nc	npn, no/nc
operating voltage	20 ... 250V AC	10 ... 35V DC	10 ... 35V DC	10 ... 35V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA	≤ 15mA	≤ 15mA
minimum load current	5mA	-	-	-
output current (max. load)	400mA	400mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC	2.0V DC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	15Hz	50Hz	50Hz	50Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	-	green LED	green LED	green LED
short-circuit protection	3A/10msec	+	+	+
reverse polarity protection	-	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M30x1.5	M30x1.5	M30x1.5	M30x1.5
length (thread/complete)	60mm / 80mm	40mm / 70mm	40mm / 70mm	40mm / 82mm
housing material	nickel-plated brass	nickel-plated brass	nickel-plated brass	nickel-plated brass
front cap material	PPO	PTFE	PTFE	PTFE
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	2m PVC cable, 3-wire	2m PVC cable, 4-wire	M12-connector, 4-pin
connection accessories	-	-	-	e.g. VK200321 , 2m PUR, angular
mounting accessories (clip)	AY000061	AY000061	AY000061	AY000061

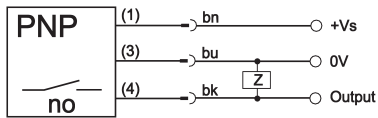
article-no.	KN304100	KN300107	KN300127	KN304107
operating range	3.0 ... 20mm	5.0 ... 20mm	5.0 ... 20mm	5.0 ... 20mm
output signal	AC, no	pnp, no	pnp, no	AC, no
mounting	non-flush	non-flush	non-flush	non-flush
connection	cable	cable	M12-connector	cable
TECHNICAL DATA				
sensing range	3.0 ... 20mm	5.0 ... 20mm	5.0 ... 20mm	5.0 ... 20mm
output signal	pnp, no	pnp, no	pnp, no/nc	AC, no
operating voltage	20 ... 250V AC	10 ... 60V DC	10 ... 60V DC	20 ... 250V AC
current consumption (w/o load)	≤ 2.5A	≤ 20mA	≤ 20mA	≤ 15mA
minimum load current	5mA	-	-	5mA
output current (max. load)	400mA	400mA	400mA	300mA
voltage drop (max. load)	10.0V AC	3.0V DC	3.0V DC	10.0V AC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	25Hz	25Hz	25Hz	15Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	green LED	green LED	green LED	green LED
short-circuit protection	3A/10msec	+	+	+
reverse polarity protection	-	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
design	M30x1.5	M30x1.5	M30x1.5	M30x1.5
length (thread/complete)	60mm / 90mm	40mm / 81mm	40mm / 81mm	40mm / 81mm
housing material	nickel-plated brass	PBT	PBT	PBT
front cap material	PPO	PA 6.6	PA 6.6	PA 6.6
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	2m PVC cable, 3-wire	M12-connector, 3-pin	2m PVC cable, 2-wire
connection accessories	-	-	e.g. VK200021 , 2m PUR, angular	-
mounting accessories (clip)	AY000061	AY000061	AY000061	AY000061
* only with screwed down cable socket				

article-no.	KN340107	KN340127	KN344107
operating range	6.0 ... 30mm	6.0 ... 30mm	6.0 ... 30mm
output signal	pnp, no	pnp, no	AC, no
mounting	non-flush	non-flush	non-flush
connection	cable	M12-connector	cable
			
TECHNICAL DATA			
sensing range	6.0 ... 30mm	6.0 ... 30mm	6.0 ... 30mm
output signal	pnp, no	pnp, no	AC, no
operating voltage	10 ... 60V DC	10 ... 60V DC	20 ... 250V AC
current consumption (w/o load)	≤ 20mA	≤ 20mA	≤ 15mA
minimum load current	-	-	5mA
output current (max. load)	400mA	400mA	30mA
voltage drop (max. load)	3.0V DC	3.0V DC	10.0V AC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	15Hz	15Hz	15Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED
display (operation)	green LED	green LED	green LED
short-circuit protection	+	+	+
reverse polarity protection	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer
design	Ø34mm	Ø34mm	Ø34mm
length (thread/complete)	- / 81mm	- / 81mm	- / 81mm
housing material	PBT	PBT	PBT
front cap material	PA 6.6	PA 6.6	PA 6.6
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	2m PVC cable, 2-wire
connection accessories	-	e.g. VK200021 , 2m PUR, angular	-
mounting accessories (clip)	-	-	-

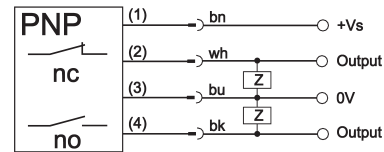
article-no.	KN800100	KN804100	KN830100	KN834100
operating range	1.0 ... 70mm	1.0 ... 70mm	1.0 ... 120mm	1.0 ... 120mm
output signal	pnp, no	AC, no	pnp, no	AC, no
mounting	non-flush	non-flush	non-flush	non-flush
connection	cable	cable	cable	cable
TECHNICAL DATA				
sensing range	1.0 ... 70mm	1.0 ... 70mm	1.0 ... 120mm	1.0 ... 120mm
output signal	pnp, no	AC, no	pnp, no	AC, no
operating voltage	10 ... 55V DC	20 ... 250V AC	10 ... 55V DC	20 ... 250V DC
current consumption (w/o load)	≤ 4.0mA	≤ 2.5mA	≤ 4.0mA	≤ 2.5mA
minimum load current	-	5mA	-	5mA
output current (max. load)	400mA	400mA	400mA	400mA
voltage drop (max. load)	1.5V DC	10.0V AC	1.5V DC	10.0V AC
hysteresis	5 ... 15%	5 ... 15%	5 ... 15%	5 ... 15%
sampling frequency	10Hz	10Hz	10Hz	10Hz
correction factors	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5	wood, glass approx. 0.6 oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
short-circuit protection	+	3A/10msec	+	3A/10msec
reverse polarity protection	+	-	+	-
design	Ø80mm	Ø80mm	Ø100mm	Ø100mm
length (thread/complete)	- / 40mm	- / 40mm	- / 40mm	- / 40mm
housing material	PBT	PBT	PBT	PBT
front cap material	PBT	PBT	PBT	PBT
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	2m PVC cable, 2-wire	2m PVC cable, 3-wire	2m PVC cable, 2-wire
connection accessories	-	-	-	-
mounting accessories (clip)	-	-	-	-

connection

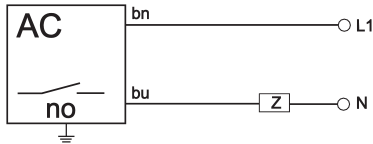
PNP, no



PNP, no/nc



AC, no



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

ARTICLE-NO.	DESCRIPTION	SENSOR DIAMETER	MATERIAL ARTICLE/SCREW
AY000047	quick clip	8mm	PA6 / galvanized steel
AY000048	quick clip, with positive stop	8mm	PA6 / galvanized steel
AY000049	quick clip	12mm	PA6 / galvanized steel
AY000050	quick clip, with positive stop	12mm	PA6 / galvanized steel
AY000051	quick clip	18mm	PA6 / galvanized steel
AY000052	quick clip, with positive stop	18mm	PA6 / galvanized steel
AY000061	quick clip	30mm	PA6 / galvanized steel
AY000062	quick clip, with positive stop	30mm	PA6 / galvanized steel
AY000053	straight base for quick clip	12mm, 18mm	PA6 / galvanized steel
AY000054	angular base for quick clip	12mm, 18mm	PA6 / galvanized steel
AY000055	quick clip labels	12 ... 30mm	plastic / -
AY000057	set in the convenient case-set	4 ... 18mm	plastic / -

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 www.ipf-electronic.com 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

