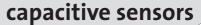




design sv 1.5 M8x1 X	witchi 3	ng di	stanc 8		mm]							lush	length [mm]	30V DC / pnp	35V DC / pnp	55V DC / pnp	60V DC / pnp	250V AC / pnp	250V AC / pnp		M8-connector	M12-connector	
M8x1 X				10	15	20	25	30	70	120	flush	non-flush	lengt	11	10	10	10	20	48	cable	M8-c	M12-	page
											Х		42 54	Х						Х	Х		4
M8x1	Х											Х	42 54	Χ						Χ		Χ	4
M12x1		Χ									Χ		50 60		Χ					Χ		Χ	5
M12x1				Χ								Х	50 60		Χ					Χ		Χ	6
M18x1				Х							Χ		70 84		Χ					Χ		Χ	7
M18x1			Χ	Х	Х							Х	70 84		Χ		Χ	Χ		Χ		Χ	8-9
Ø20mm					Х							Х	79 94				Χ			Χ	Χ		9
M30x1.5					X		X				Х		70 82		Х			Х		Х		Х	10-11
M30x1.5						Х		Х				Х	70 90		Х		Х	Х		Х		Х	11-12
Ø34mm								Х				Х	81				Х	Х		Х		Х	13
Ø80mm									Χ			Х	40			Χ		Χ		Х			14
Ø100mm										Х		Х	40			Х		Χ		Χ			14

cable sockets	15
connection, mounting material	15



metal, plastic devices 1000

dimensions M8 x 1

M12 x 1 M18 x 1 Ø 20 M30 x 1.5 Ø 34 Ø 80 Ø 100

flush switching distance up to 25mm non-flush switching distance up to 120mm

- metal sleeve made of stain. steel; nickel-plated brass or plastic housing
- ✓ LED indicator for signal
- **✓** integrated amplifier
- high switching frequency and switching distances
- √ connection via cable, M8- or M12-connector

Switching distance adjustable with potentiometer











description

The function of a capacitive sensor is based on the change of the electric field in the area in front of its active zone. The sensor operates with an oscillator. The capacitance between the active electrode and the electric ground potential is measured.

As a metallic or non-metallic material enters the active zone of the sensor, the capacitance increases and thereby influences the oscillation amplitude of the oscillator.

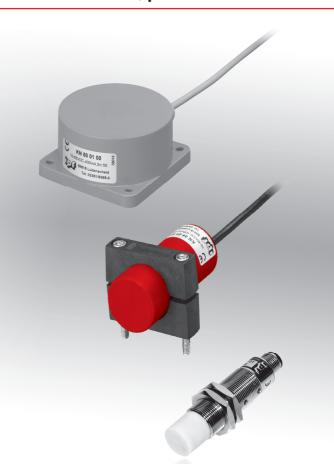
As a result, the trigger stage downstream of the oscillator flips, thereby causing the switching amplifier in the sensor to change its output status.

All sensors are provided with a potentiometer by means of which the desired switching distance can be set. These capacitive sensors are used for the detection of objects, for coun-

ting tasks and for all types of filling level monitoring of solid materials (e.g., powder, granulate, pellets, etc.) and liquid 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 helts
- detection of objects through the walls of non-metallic containers and tubes





switching distance	KB080100	KB080170	KN080100	KN080170
_	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
	SW13 SW13 ABOUT THE POLITICAL POLI	SW13	M8x1 6.6 8 8 8 8 8 8 8 8	M8x1 6.6 SW13 Poti M8x1
TECHNICAL DATA switching distance output signal operating voltage	0.1 1.5mm pnp, no 11 30V DC	0.1 1.5mm pnp, no 11 30V DC	0.1 3.0mm pnp, no 11 30V DC	0.1 3.0mm pnp, no 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%
switching 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. oil, PVC approx. 0.5
	yellow LED	yellow LED	yellow LED	yellow LED
display	,		J	
short-circuit protection	+	+	+	+
short-circuit protection reverse polarity protection	+ +	+	+ +	+
short-circuit protection reverse polarity protection sensitivity adjustment	+		+	
short-circuit protection reverse polarity protection sensitivity adjustment dimensions	+ + potentiometer M8x1	+ potentiometer M8x1	+ + potentiometer M8x1	+ potentiometer M8x1
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete)	+ + potentiometer M8x1 36mm/42mm	+ potentiometer M8x1 42mm/54mm	+ + potentiometer M8x1 33mm/42mm	+ potentiometer M8x1 39mm/54mm
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material	+ + potentiometer M8x1 36mm/42mm stainl. steel	+ potentiometer M8x1 42mm/54mm stainl. steel	+ + potentiometer M8x1 33mm/42mm stainl. steel	+ potentiometer M8x1 39mm/54mm stainl. steel
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap)	+ + potentiometer M8x1 36mm/42mm stainl. steel PTFE	+ potentiometer M8x1 42mm/54mm stainl. steel PTFE	+ + potentiometer M8x1 33mm/42mm stainl. steel PTFE	+ potentiometer M8x1 39mm/54mm stainl. steel PTFE
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature	+ + potentiometer M8x1 36mm/42mm stainl. steel PTFE -10 +70°C	+ potentiometer M8x1 42mm/54mm stainl. steel PTFE -10 +70°C	+ + potentiometer M8x1 33mm/42mm stainl. steel PTFE -10 +70°C	+ potentiometer M8x1 39mm/54mm stainl. steel PTFE -10 +70°C
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529)	+ + potentiometer M8x1 36mm/42mm stainl. steel PTFE -10 +70°C IP65	+ potentiometer M8x1 42mm/54mm stainl. steel PTFE	+ + potentiometer M8x1 33mm/42mm stainl. steel PTFE	+ potentiometer M8x1 39mm/54mm stainl. steel PTFE
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529) connection	+ + potentiometer M8x1 36mm/42mm stainl. steel PTFE -10 +70°C	+ potentiometer M8x1 42mm/54mm stainl. steel PTFE -10 +70°C IP65 M8-connector, 3-pin	+ + potentiometer M8x1 33mm/42mm stainl. steel PTFE -10 +70°C	+ potentiometer M8x1 39mm/54mm stainl. steel PTFE -10 +70°C IP65 M8-connector, 3-pin
display short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529) connection connection accessories	+ + potentiometer M8x1 36mm/42mm stainl. steel PTFE -10 +70°C IP65 2m PUR cable, 3-wire	+ potentiometer M8x1 42mm/54mm stainl. steel PTFE -10 +70°C IP65 M8-connector, 3-pin e.g. VK200075	+ + potentiometer M8x1 33mm/42mm stainl. steel PTFE -10 +70°C IP65 2m PUR cable, 3-wire	+ potentiometer M8x1 39mm/54mm stainl. steel PTFE -10 +70°C IP65 M8-connector, 3-pin e.g. VK200075
short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529) connection	+ + potentiometer M8x1 36mm/42mm stainl. steel PTFE -10 +70°C IP65	+ potentiometer M8x1 42mm/54mm stainl. steel PTFE -10 +70°C IP65 M8-connector, 3-pin	+ + potentiometer M8x1 33mm/42mm stainl. steel PTFE -10 +70°C IP65	+ potentiometer M8x1 39mm/54mm stainl. steel PTFE -10 +70°C IP65 M8-connector, 3-pin



article-no. switching distance output signal mounting connection	KB120100 0 6mm pnp, no flush cable	KB120120 0 6mm pnp, no flush M12-connector	KB120400 0 6mm pnp, no/nc flush cable	KB120420 0 6mm pnp, no/nc flush M12-connector
	M12x1 SW17 10.5	M12x1 W12x1 W12x1	M12x1 N12x1 SW17 Poti LED	M12x1 SW17 Poti 10.6 LED M12x1
TECHNICAL DATA switching distance output signal	0 6mm pnp, no	0 6mm pnp, no	0 6mm pnp, no/nc	0 6mm pnp, no/nc
operating voltage current consumption (w/o load) output current (max. load)	10 35V DC ≤ 15mA 250mA	10 35V DC ≤ 15mA 250mA	10 35V DC ≤ 15mA 2x250mA	10 35V DC ≤ 15mA 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%
switching 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	-	green LED	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
dimensions	M12x1	M12x1	M12x1	M12x1
length (thread/complete)	37mm/50mm	40mm/60mm	37mm/50mm	40mm/60mm
housing material material (front cap)	stainl. steel PTFE	stainl. steel PTFE	stainl. steel PTFE	stainl. steel PTFE
operating temperature	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C
degree of protection (EN 60529)	1P67	1P67	-23 +70 C	IP67
connection	2m PUR cable, 3-wire	M12-connector, 3-pin	2m PUR cable, 4-wire	M12-connector,4-pin
connection accessories mounting accessories (clip)	- AY000049	e.g. VK200025 AY000049	- AY000049	e.g. VK200325 AY000049



	M12x1 10.5	M12x1 10.6	M12x1	M12x1 10.6
	SW17 10.5 Poti LED	SW17 8 8 Poti SW12x1	SW17 S S S S S S S S S S S S S S S S S S S	SW17 & &
TECHNICAL DATA	0.5 10000	0.5 100000	0.5 10mm	0.5 10mm
switching distance output signal	0.5 10mm pnp, no	0.5 10mm pnp, no	pnp, no/nc	0.5 10mm 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
	250mA	250mA	2x250mA	2x250mA
output current (max. load)		201100	201100	2.0V DC
	2.0V DC	2.0V DC	2.0V DC	2.0 V DC
voltage drop (max. load) hysteresis	5 15%	5 15%	5 15%	5 15%
voltage drop (max. load) hysteresis switching frequency	5 15% 50Hz	5 15% 50Hz	5 15% 50Hz	5 15% 50Hz
voltage drop (max. load) hysteresis switching frequency	5 15%	5 15%	5 15%	5 15%
voltage drop (max. load) hysteresis switching frequency correction factors	5 15% 50Hz wood, glass approx. 0.6	5 15% 50Hz wood, glass approx. 0.6	5 15% 50Hz wood, glass approx. 0.6	5 15% 50Hz wood, glass approx. 0.6
voltage drop (max. load) hysteresis switching frequency correction factors display (signal)	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + +	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + +	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + +	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + +
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete)	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm stainl. steel	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm stainl. steel	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm stainl. steel
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap)	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel PTFE	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm stainl. steel PTFE	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel PTFE	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm stainl. steel PTFE
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529)	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C IP67	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C IP67	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C IP67	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C IP67
output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529) connection connection accessories	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C IP67 M12-connector, 3-pin e.g. VK200025	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C IP67 2m PUR cable, 4-wire	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C
voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529) connection	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C IP67 2m PUR cable, 3-wire	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C IP67 M12-connector, 3-pin	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M12x1 30mm/50mm stainl. steel PTFE -25 +70°C IP67 2m PUR cable, 4-wire	5 15% 50Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M12x1 32mm/60mm stainl. steel PTFE -25 +70°C IP67 M12-connector,4-pin



article-no.				
switching distance output signal mounting connection	KB180100 0.5 10mm pnp, no flush cable	KB180120 0.5 10mm pnp, no flush M12-connector	KB180400 0.5 10mm pnp, no/nc flush cable	KB180420 0.5 10mm pnp, no/nc flush M12-connector
	M18x1 Sw24 Poti LED	M18x1 SW17 Poti 16.5 19 LED M12x1	M18x1 SW17 Poti LED	M18x1 SW17 Poti 16.5 12 LED M12x1
TECHNICAL DATA switching distance output signal	0.5 10mm pnp. no	0.5 10mm	0.5 10mm	0.5 10mm
switching distance output signal	pnp, no	pnp, no	pnp, no/nc	pnp, no/nc
switching distance output signal operating voltage	pnp, no 10 35V DC	pnp, no 10 35V DC	pnp, no/nc 10 35V DC	pnp, no/nc 10 35V DC
switching distance output signal operating voltage current consumption (w/o load)	pnp, no 10 35V DC ≤ 15mA	pnp, no 10 35V DC ≤ 15mA	pnp, no/nc 10 35V DC ≤ 15mA	pnp, no/nc 10 35V DC ≤ 15mA
switching distance output signal operating voltage current consumption (w/o load) output current (max. load)	pnp, no 10 35V DC ≤ 15mA 250mA	pnp, no 10 35V DC ≤ 15mA 250mA	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA
switching distance output signal operating voltage current consumption (w/o load)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC	pnp, no/nc 10 35V DC ≤ 15mA	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis	pnp, no 10 35V DC ≤ 15mA 250mA	pnp, no 10 35V DC ≤ 15mA 250mA	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15%	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15%	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + +	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + +	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + +	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED + +
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED +	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - +	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED +	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - +
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + +	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + +	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + +	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED + +
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED + + potentiometer M18x1	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + + potentiometer M18x1 55mm/70mm	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE -25 +70°C IP67	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE -25 +70°C IP67	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE -25 +70°C IP67	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE -25 +70°C IP67
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529) connection	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE -25 +70°C	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE -25 +70°C IP67 M12-connector, 3-pin	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE -25 +70°C	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE -25 +70°C IP67 M12-connector,4-pin
switching distance output signal operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) hysteresis switching frequency correction factors display (signal) display (operation) short-circuit protection reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529)	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE -25 +70°C IP67	pnp, no 10 35V DC ≤ 15mA 250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE -25 +70°C IP67	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED green LED + potentiometer M18x1 55mm/70mm nickel-plated brass PTFE -25 +70°C IP67	pnp, no/nc 10 35V DC ≤ 15mA 2x250mA 2.0V DC 5 15% 300Hz wood, glass approx. 0.6 oil, PVC approx. 0.5 yellow LED - + potentiometer M18x1 55mm/84mm nickel-plated brass PTFE -25 +70°C IP67



article-no.	KN180100	KN180120	KN180400	KN180420
switching distance	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
	M18x1 15.5 SW24 16.5 Poti	M18x1 15.5 SW24 Poti 16.5 9 LED M12x1	M18x1 15.5 2 16.5 Poti LED	M18x1 15.5 SW24 Poti 16.5 99 LED M12x1
TECHNICAL DATA				
switching distance	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)	250mA	250mA	2x250mA	2x250mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC 5 15%	2.0V DC
hysteresis switching frequency	5 15% 50Hz	5 15% 50Hz	5 15% 50Hz	5 15% 50Hz
correction factors	wood, glass approx. 0.6	wood, glass approx. 0.6	wood, glass approx. 0.6	wood, glass approx. 0.6
correction factors	oil, PVC approx. 0.5	oil, PVC approx. 0.5	oil, PVC approx. 0.5	oil, PVC approx. 0.5
display (signal)	yellow LED	yellow LED	yellow LED	yellow LED
display (operation)	green LED	-	green LED	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
dimensions	M18x1	M18x1	M18x1	M18x1
length (thread/complete)	43mm/70mm	43mm/84mm	43mm/70mm	43mm/84mm
housing material	nickel-plated brass	nickel-plated brass	nickel-plated brass	nickel-plated brass
material (front cap)	PTFE	PTFE	PTFE	PTFE
operating temperature	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C
degree of protection (EN 60529)	IP67	IP67	IP67	IP67
connection	2m PUR cable, 3-wire	M12-connector, 3-pin	2m PVC-cable, 4-wire	M8-connector,4-pin
connection accessories	-	e.g. VK200025	-	e.g. VK200325
mounting accessories (clip)	AY000051	AY000051	AY000051	AY000051
mounting accessories (universal holder)	AY000117	AY000117	AY000117	AY000117



article-no.	KN180107	KN184107	KN200107	KN200177
switching distance	1.0 8.0mm	1.0 8.0mm	3.5 15mm	3.5 15mm
output signal mounting	pnp, no non-flush	AC, no non-flush	pnp, no non-flush	pnp, no non-flush
connection	cable	cable	cable	M8-connector
	M18x1 16.7 SW24 LED	M18x1 16.7 SW24 16.7 Poti	Poti LED	Poti LEDs M8x1
TECHNICAL DATA	1.0 8.0mm	1.0 8.0mm	3.5 15mm	3.5 15mm
switching distance 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)	≤ 15mA	≤ 20mA	≤ 15mA	≤ 15mA
minimum load current	-	-	5mA	-
output current (max. load)	200mA	300mA	400mA	400mA
voltage drop (max. load)	3.0V DC	10.0V AC	3.0V DC	3.0V DC
hysteresis switching frequency	5 15% 25Hz	5 15% 15Hz	5 15% 25Hz	5 15%
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	25Hz 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
dimensions	M18x1	M18x1	Ø 20mm	Ø 20mm
length (thread/complete)	40mm / 81mm	40mm / 81mm	- / 81mm	- / 81mm
housing material	PBT	PBT	PBT	PBT
material (front cap)	PA 6.6	PA 6.6	PA 6.6	PA 6.6
operating temperature degree of protection (EN 60529)	-25 +70°C IP67	-25 +70°C IP67	-25 +70°C IP67	-25 +70°C IP67 *
connection	2m PVC-cable, 3-wire	2m PVC-cable, 2-wire	2m PVC-cable, 3-wire	M8-connector, 4-pin
connection accessories	-	-	-	e.g. VK200375
	AY000051	AY000051		_
mounting accessories (clip)	A1000031	AIOOOOJI		



article-no. switching distance	KB300100 0.5 25mm	KB300120 0.5 25mm	KB300400 0.5 25mm	KB300420 0.5 25mm
output signal				
mounting	pnp, no flush	pnp, no flush	pnp, no/nc flush	pnp, no/nc flush
connection	cable	M12-connector	cable	M12-connector
	M30x1.5 SW36 Poti	M30x1.5 SW36 88 SW36 89 M12x1	M30x1.5 SW36 Poti	SW36
TECHNICAL DATA				
switching distance	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)	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%
switching 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	+	+	+	+ notontiometer
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
dimensions	M30x1.5	M30x1.5	M30x1.5	M30x1.5
dimensions length (thread/complete)	55mm/70mm	55mm/82mm	55mm/70mm	55mm/82mm
dimensions length (thread/complete) housing material	55mm/70mm nickel-plated brass	55mm/82mm nickel-plated brass	55mm/70mm nickel-plated brass	55mm/82mm nickel-plated brass
dimensions length (thread/complete) housing material material (front cap)	55mm/70mm nickel-plated brass PTFE	55mm/82mm nickel-plated brass PTFE	55mm/70mm nickel-plated brass PTFE	55mm/82mm nickel-plated brass PTFE
dimensions length (thread/complete) housing material material (front cap) operating temperature	55mm/70mm nickel-plated brass PTFE -25 +70°C	55mm/82mm nickel-plated brass PTFE -25 +70°C	55mm/70mm nickel-plated brass PTFE -25 +70°C	55mm/82mm nickel-plated brass PTFE -25 +70°C
dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529)	55mm/70mm nickel-plated brass PTFE -25 +70°C IP67	55mm/82mm nickel-plated brass PTFE -25 +70°C IP67	55mm/70mm nickel-plated brass PTFE -25 +70°C IP67	55mm/82mm nickel-plated brass PTFE -25 +70°C IP67
dimensions length (thread/complete) housing material material (front cap) operating temperature	55mm/70mm nickel-plated brass PTFE -25 +70°C	55mm/82mm nickel-plated brass PTFE -25 +70°C	55mm/70mm nickel-plated brass PTFE -25 +70°C	55mm/82mm nickel-plated brass PTFE -25 +70°C





article-no. switching distance output signal	KB304100 3.0 15mm AC, no	KN300100 1.0 30mm	KN300400 1.0 30mm	KN300420 1.0 30mm
mounting	flush	pnp, no non-flush	pnp, no/nc non-flush	pnp, no/nc non-flush
connection	cable	cable	cable	M12-connector
	M30x1.5 SW36	M30x1.5 28 28 SW36 27.6 Poti LED	M30x1.5 28 28 SW36 27.6 Poti LED	M30x1.5 28 SW36 27.6 Pott LED M12x1
TECHNICAL DATA				
switching distance	3.0 15mm	1.0 30mm	1.0 30mm	1.0 30mm
output signal	pnp, no	pnp, no	pnp, no/nc	pnp, 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%
switching 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/10ms	+	+	+
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
dimensions	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
material (front cap)	PPO	PTFE	PTFE	PTFE70°C
operating temperature degree of protection (EN 60529)	-25 +70°C IP67	-25 +70°C IP67	-25 +70°C IP67	-25 +70°C 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. VK200325
mounting accessories (clip)	AY000061	AY000061	AY000061	AY000061



article-no.	KN304100	KN300107	KN300127	KN304107
switching distance	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
	M30x1.5 SW36 Poti LED	M30x1.5 27.5 27.5 SW36 27.5	M30x1.5 27.5 SW36 27.5 Poti LEDs M12x1	M30x1.5 27.5 SW36 27.5 Poli LED
TECHNICAL DATA switching distance	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%
switching 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/10ms	+	+	-
reverse polarity protection	+	+	+	+
sensitivity adjustment	potentiometer	potentiometer	potentiometer	potentiometer
dimensions	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
material (front cap)	PPO PPO	PA 6.6	PA 6.6	PA 6.6
	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C
		IP67	IP67 *	IP67
operating temperature	IP67			
operating temperature degree of protection (EN 60529)	IP67			2m DVC cable 2
operating temperature degree of protection (EN 60529) connection	IP67 2m PVC-cable, 3-wire	2m PVC-cable, 3-wire	M12-connector, 3-pin	2m PVC-cable, 2-wire
operating temperature degree of protection (EN 60529)				2m PVC-cable, 2-wire - AY000061



switching distance output signal	KN340107	KN340127	KN344107
autnut cianal	6.0 30mm	6.0 30mm	6.0 30mm
	pnp, no	pnp, no	AC, no
mounting	non-flush	non-flush	non-flush
connection	cable	M12-connector	cable
	Ø34 Poti LEDs	M12x1 LEDs Poti	Ø34 Poti LEDs
ECHNICAL DATA witching distance utput signal perating voltage	6.0 30mm pnp, no 10 60V DC	6.0 30mm pnp, no 10 60V DC	6.0 30mm AC, no 20 250V AC
current consumption (w/o load)	≤ 20mA	≤ 20mA	≤ 15mA
ninimum load current	400mA	- 400mA	5mA 30mA
output current (max. load) oltage drop (max. load)	3.0V DC	3.0V DC	10.0V AC
ortage drop (max. load) lysteresis	5.0V DC	5.0V DC 5 15%	5 15%
witching frequency	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
display (signal)	yellow LED	yellow LED	yellow LED
display (operation)	green LED	green LED	green LED
hort-circuit protection	+	+	-
	+	+	+
	potentiometer	potentiometer	potentiometer
		4 2 4	Ø 34mm
ensitivity adjustment	Ø 34mm	Ø 34mm	Ψ 5411111
ensitivity adjustment limensions	·	- / 81mm	- / 81mm
ensitivity adjustment limensions ength (thread/complete)	Ø 34mm		
densitivity adjustment dimensions ength (thread/complete) nousing material	Ø 34mm - / 81mm	- / 81mm	- / 81mm
dimensions length (thread/complete) housing material material (front cap) perating temperature	Ø 34mm - / 81mm PBT	- / 81mm PBT	- / 81mm PBT
reverse polarity protection sensitivity adjustment dimensions length (thread/complete) housing material material (front cap) operating temperature degree of protection (EN 60529)	Ø 34mm - / 81mm PBT PA 6.6 -25 +70°C	- / 81mm PBT PA 6.6 -25 +70°C	- / 81mm PBT PA 6.6 -25 +70°C



article-no.	KN800100	KN804100	KN830100	KN834100
switching distance	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
	Poti LED	Poti LED Poti LED Poti LED	Poti BED Poti LEED	Poti HED
TECHNICAL DATA				
switching distance	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%
switching 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/10ms	+	3A/10ms
reverse polarity protection	+	+	+	+
			Ø 100mm	
dimensions	Ø 80mm	Ø 80mm		Ø 100mm
length (thread/complete)	-/40mm	-/40mm	-/40mm	-/40mm
housing material	PBT	PBT	PBT	PBT
material (front cap)	PBT	PBT	PBT	PBT
operating temperature	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C
degree 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)	-	:		-



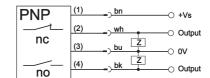
metal, plastic devices 1000

connection

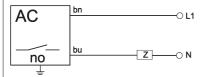
PNP, no



PNP, no/nc



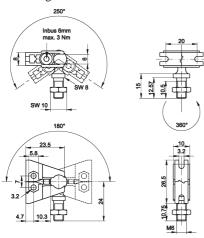
AC, no



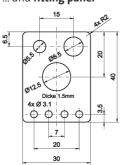
wire colors: bn = brown (1), white = (wh), bu = blue (3), bk = black (4)

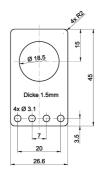
universal mounting AY000115 / AY000117

consisting of base module



... and fitting panel





ACCESSORIES

ACCESSORIES				
article-no.	description	diameter	material	
AY000088	base module*		flanges: stainless steel, ball pins: galvanized steel	
AY000115	mounting kit for M5, M8, M12 sensors		stainless steel	
AY000117	mounting kit for M18 sensors		stainless steel	
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 label	12 30mm	plastic / -	
AY000057	box set with selection of quick clips	4 18mm	plastic / -	

The AY000088 base module is contained in every mounting kit Material of bolts and nuts: galvanized steel

This data sheet only contains the available standard variants. For other output / connection variants, we kindly ask that you contact us.

We are happy to supply the right cable socket for the plug equipment. You will find a list in the "accessories" section of the catalog under **ipf-SENSORFLEX®** "cable sockets" or in the search window on our homepage www.ipf-electronic.com (using the search term "VK").

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