

Capacitive Proximity Switch Operating Distance 15 - 70 mm Item group 100



Monitoring of filling levels, convoyer belts, packages

-Liquids

-Material to be milled

-Glass

-Wood

-Plastics

-Cardboard

-Metal



Design:	M 18 Plastic thread	M 30 Plastic thread	
Operating distance (Sn):	8 mm	15 mm	
	LED 20 SW 24 M 18 x 1	Deti	
Operating distance adjustable:	yes	yes	
Installation in metal:	non flush	non-flush	
Operating frequency AC/DC:	15 Hz / 300 Hz	10 Hz / 100 Hz Plastic PBT KKL 015.05 G	
Housing material:	Plastic PBT		
Type AC/DC:	KKL 008.95 only AC, no short circuit protection		
ArtNo.:	1043A	1031D	
Supply voltage:	20 – 250 V AC	20 – 260 V AC/DC	
Diagram of connection:	2-wire normally open	① 2-wire normally open	
Connection:	2 m cable	2 m cable	
Type DC:	KKL 008.33 G	KKL 015.38 G S4	
ArtNo.:	1037A	10321	
Supply voltage:	10 – 55 V DC	10 – 55 V DC	
Diagram of connection:	3-wire PNP normally open	② 4-wire PNP normally closed + normally open	
Connection:	2 m cable	plug S4 (M12 x 1)	
Notes:			

Design:	M 30 Metal thread	Ø 34 mm cylindrical smooth	
Operating distance (Sn):	15 mm	20 mm	
	LED 20 SW 36 M 30 x 1,5	M5 x 35 D D D D D D D D D D D D D D D D D D	
Operating distance adjustable:	yes	yes	
Installation in metal:	flush	non-flush	
Operating frequency:	15 Hz / 100 Hz	10 Hz / 100 Hz Plastic PBT KKH 020.05 G	
Housing material:	Plastic PBT / nickel plated brass		
Type AC/DC:	KKZ 302.95 only AC, no short circuit protection		
ArtNo.:	1050C	1010C	
Supply voltage:	20 – 250 V AC	20 – 260 V AC/DC	
Diagram of connection :	2-wire normally open	① 2-wire normally open	
Connection:	2 m cable	2 m cable	
Type DC:	KKZ 302.23 G	KKH 020.38 G S4	
ArtNo.:	1050A	1058A	
Supply voltage:	10 – 30 V DC	10 – 55 V DC	
Diagram of connection :	3-wire PNP normally open	② 4-wire PNP normally closed + normally open	
Connection:	2 m cable	plug S4 (M12 x 1)	
Notes:			



Design:	80 x 120 mm	Ø 80 mm
Operating distance (Sn):	50 mm	60 mm
	80 80 80 80 80 80 80 80 80 80 80 80 80 8	80 POTI LED 80 5,3
Operating distance adjustable:	yes	yes
Installation in metal:	non-flush	non-flush
Operating frequency AC/DC:	10 Hz / 100 Hz	10 Hz / 15 Hz
Housing material:	Plastic PBT	Plastic PBT
Type AC/DC:	KKRD 050.05 G	KKK 060.05 G
ArtNo.:	1041B	1016D
Supply voltage:	20 – 260 V AC/DC	20 – 260 V AC/DC
Diagram of connection:	① 2-wire normally open	① 2-wire normally open
Connection:	2 m cable	2 m cable
Type DC:	KKRD 050.38 G S4	KKK 060.38 G S4
ArtNo.:	1057A	1015C
Supply voltage:	10 – 55 V DC	10 – 55 V DC
Diagram of connection:	② 4-wire PNP normally closed + normally open	② 4-wire PNP normally closed + normally open
Connection:	plug S4 (M12 x 1)	plug S4 (M12 x 1)
Notes:	plug 0 : (init x i)	Ping 0 (iii 2 × 1)
Notes.		
Design:	Ø 100 mm	54 x 54 mm
Operating distance (Sn):	70 mm	35 mm
	100	active S

Design.	ווווו טטו ש	54 X 54 IIIIII	
Operating distance (Sn):	70 mm	35 mm	
	100 LED 0 0 110	active surface	
Operating distance adjustable:	yes	by 2 external push-buttons (TEACH-IN)	
Installation in metal:	non-flush	non-flush	
Operating frequency:	10 Hz / 15 Hz	2 Hz	
Housing material:	Plastic PBT	Plastic PBT	
Type AC/DC:	KKN 070.05 G		
ArtNo.:	1021F		
Supply voltage:	20 – 260 V AC/DC		
Diagram of connection:	2-wire normally open		
Connection:	2 m cable		
Type DC:	KKN 070.38 G S4	KKRH 035.23 G	
ArtNo.:	1020D	1056B	
Supply voltage:	10 – 55 V DC	24 V DC	
Diagram of connection:	② 4-wire PNP normally closed + normally open	3 3-wire PNP normally open	
Connection:	plug S4 (M12 x 1)	2 m cable	
Notes:		automatic adjustment of operating distance TEACH-IN	

Further variations available:

NPN output, normally closed output, complementary output, various cable and connector versions, customer-specific solutions.



Capacitive proximity switches with relay output and programmable time delay.

The sensor is applied for silo level control. If no filling material is detected at the sensing face, the internal delay starts and activates a relay after a delay. Thanks to this function using a second sensor is not required.

The capacitive level sensor detects the filling level in tanks over a height of 300 mm. The filling material is detected through a nonconductive tank wall.

The analogue output signal results from the sum of the 10 sensor segments covered by filling material. Thanks to the easy-to-handle Teach-In function setting is very easy. This automatic setting of operating distances can be changed by push-button (sense – or sense +) acc. to operating requirements.

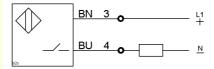
Design:	Ø 34 mm	300 x 58 mm	
Operating distance (Sn):	20 mm	0 – 20 mm	
	M5 x 35 DIN 912 DIN 912 DED DED DED DED DED DED DED D	and LED group. See active surface	
Installation in metal:	non-flush	non-flush	
Output function:	Relay changeover contact	Analog output 0 - 10 V DC (load > 10K)	
Operating distance adjustable	yes	yes	
Supply voltage:	20-260 V AC/DC	24 V DC +10%/-15%	
Power frequency:	40 –440 Hz		
Ripple voltage:	max. 15 %	max. 15%	
Operating frequency:	1 Hz		
Relay contact load max.:	230 V AC / 5A max. 250 VA		
Response time:		0,5 s	
Turn-on delay:		1 s	
Current absorbed	< 1 W		
No load current		max. 40 mA	
Switching hysteresis	1 – 15 %		
Ambient temperature	-20 +70 °C	-10 +70 °C	
Protection class	IP 65	IP 67	
Connection:	1,5 m cable	1,5 m cable	
Function display	LED	LED	
Housing material:	Plastic PBT	Plastic PBT	
Type:	KKH 020.0 RT	KKU 003.19	
ArtNo.:	1052A	1055D	
Diagram of connection:	BN 0 = = = = = = = = = = = = = = = = = =	BN 0 - 10 V BK 0 - 10 V BU 0 -	
Notes:	Delay adjustable from 1 s to 10 min. Delay starts at undampled sensor, relay output	automatic setting of the operating distance, TEACH-IN	



AC/DC Type

Supply voltage	20 - 260 V AC/DC	Operating distance adjustable	yes
Supply frequency	40 – 440 Hz	Short circuit protection	yes, pulsing
Ripple voltage	max. 15 % (DC)	Protection class	IP 65
Voltage drop	9 V	Switching hysteresis	1 - 15 %
Load current max.	5 - 400 mA	Ambient temperature	-25 +70 °C
short time load current	2 A / 10 ms	Residual current	1,7 mA / 260 V AC
	0,8 A / 100 ms		1,0 mA / 24 V DC
Function display	LED		





Also available as normally open.

DC-Type

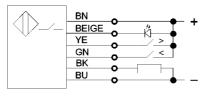
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Supply voltage	10 - 55 V DC	Operating distance adjustable	yes
Ripple voltage	max. 15 %	Short circuit protection	yes, pulsing
Voltage drop	1,5 V / 50 mA	Protection class	IP 65
No load current	< 10 mA	Switching hysteresis	1 - 15 %
Load current max.	0 - 400 mA	Ambient temperature	-25 +70 °C
short time load current	2 A / 10 ms 0,8 A / 100 ms	Function display	LED
2	1 + 4 - + 2	plug S4 4 = normally open 2 = normally close	2 n. c. 4 n. o.

Also available as NPN.

DC- Type with remote adjustment

Supply voltage	24 V DC	Short circuit protection	yes, pulsing
Ripple voltage	max. 15 %	Protection class	IP 65
Voltage drop	2 V	Switching hysteresis	1 - 15 %
No load current	15 mA	Ambient temperature	-25 +70 °C
Load current max.	0 - 400 mA	Function display	LED extern
short time load current	2 A / 10 ms	Operating distance adjustable	yes, 2 external
	0,8 A / 100 ms		push-buttons





Accessories

7 10000001100		
Connection cable with moulded S4 angle coupling for types with plug S4.	Туре	ArtNo.
(not included in the scope of supply)		
length 2 m	ST 041-2	9841D
length 5 m	ST 041-5	9841E

Incorporated potentiometers for adjustment of operating distance are protected by a plastic screw. The 20-turn potentiometer enables precise setting of the desired switching point.



Capacitive proximity switches are suitable for detection of nearly all materials, starting with metal to plastic and with liquid to bulk material. The sensor effect is based on evaluation of a change of capacity by proximity of an object.

The operating distance (Sn) is to a large extent dependant on the material. Data sheet information refers to a grounded metal plate having an edge length of 3 x Sn. Typical correction factors are water = 1, glass = 0.5, PVC = 0.3, wood = 0.2 to 0.7.

Since 1979 Proxitron has been developing and manufacturing sensors. Robust construction and permanent quality control guarantee maximum reliability. Apart from the items described in this leaflet many designs made to the application in question are available. In cooperation with our customers new products are resulting permanently.

Proxitron sensors comply with the actually valid IEC publications, EN standards as well as DIN VDE standards and different factory standards.

Applications

Control of presence and completeness in packing installations, also through the cartons.

Level control of liquids or bulk material through glass or plastic.

Level control of ground material with compensation of different residual humidities.

Stoppage warning for sucking-off plants in wood industry.

Level control in filling plants

Feeding monitoring at the silo by means of one sensor only with integrated time relay.

Control of double glass for plate glass conveyors.

Breakage control for tapes of textile, paper and plastic.

Options: TEACH-IN function or remote adjustment with external push-buttons for faster adaption to changing kinds of operation

Survey of product groups



www.proxitron.de

Inductive proximity switch

WG 210 Sensing distance < 20 mm WG 220 Sensing distance 20-60 mm

WG 230 Sensing distance 60-120 mm

WG 240 Sensor strips

WG 241 Surface sensors

WG 250 Ring-sensors

WG 260 Inductive analog-sensors and evaluation electronics

Other Sensors

WG 100 Capacitive Sensors

WG 510 Piros Light barriers

WG 610 Piros Infrared-Sensors

WG 620 Piros for fibre optics

WG 630 Piros Infrared pyrometers

WG 800 Flow-sensors for air

WG 830 Flow-sensors