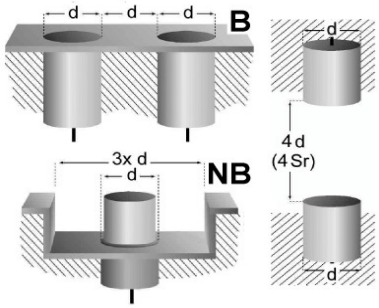
S·C·A·T europe

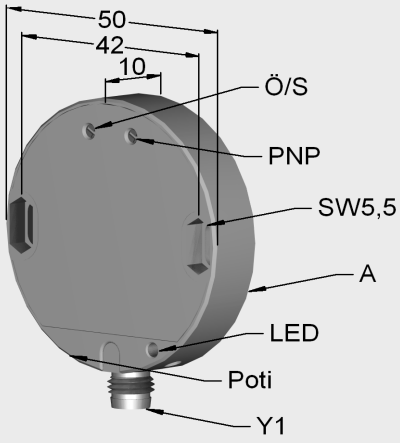
50Ø/10

application notes

Type code (abstract)

SK	sensor capacitive, w/o amplifier
SKF	sensor cap., w/o amplifier, flexible
SK1	sensor capacitive, self-contained
SV(D)	sensor amplifier (dynamic)
SNG	sensor power pack
HT###	high temperature use
TM	pulse modulation technique (High noise immune)
## / FS(A)	max sensing distance / Fill-level switch (adaptive)
M30	model and/or dimension
P	ouput stage **PNP**, **NPN**, **X** (switchable)
B	mounting **B**=flush **NB**=non-flush
S	**S**=N.O. **Ö**=N.C. **X**=function switchable
POM	Housing Material POM
1M2-Y2	cable & connector: Y# = connector 1M2 = 1.2m cable length





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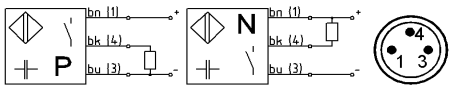


Typ / Type	Nr./No.
Level Disc Sensor / Full Level	108 048
Level Disc Sensor / Low Level	108 045

Mounting [flush / nonflush]		[B / NB]	B
Operating distance	Sn	[mm]	2... 25
Hysteresis	H	[%SR]	20
Frequency of operating cycles	f	[Hz]	50
Repeat accuracy	R	[%SR]	2
Operating temperature range	Ta	[C°]	-30... 60
Temperature drift [range]		[%SR]	20 [-5... 55]
Protection class			IP 65
Rated insulation voltage	Ui	[V]	75 d. c.
Material of housing			POM
Utilisation category			DC13
Connection			Z10; Z11
Supply voltage range UB	Ub	[V]	10... 30
No-load supply current	Iomax.	[mA]	< 15
Minimum operational current	Im	[mA]	
Operational current	Ie	[mA]	150
Off-state current	Ir	[mA]	
Voltage drop	Ud @ Ie	[V]	1,5
Time delay before availability	tv	[ms]	
Indicator [UB / Output]			– / •
Short circuit- overload-protection			• / •
Reverse polarity protection			•
Conformity		EMC EEC-direct.	IEC 60947-5-2 : 2004
EMC			IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.55-1.6 Mhz.
Associated equipment			SNG-###AC...
Additional functionality			PNP / NPN S / Ö NO / NC
Application			

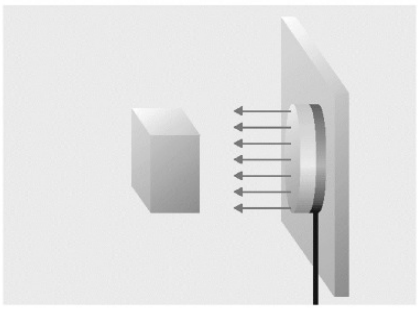
Range of use

As a distance sensor with an adjustable sensing distance of up to 25 mm, the compact-size disk sensor, 50 mm diameter, is suitable for scanning plastics, glass, ceramics, wood, etc. This sensor's large active surface also enables it to be used as a fill level indicator, since it can detect liquids and granules through plastic or glass walls.

Applications

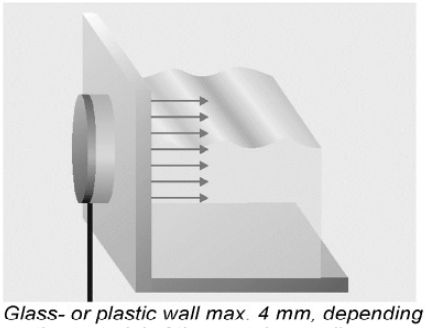
1. Object detection

Detecting plastics, glass, ceramics, wood and all metals, etc.



2. Fill level monitoring

Level control of liquids and granules like water, blood, cereals, coffee beans, etc.



Glass- or plastic wall max. 4 mm, depending on the material of the container wall.

Adjustment

The sensor is adjusted using a flushmounted Potentiometer, adjustment instructions for flush sensor versions see on page 1.09.

Signal evaluation

The SNG series (page 12.01-12.03) of sensor devices is available for signal evaluation.
Depending on the application involved, you can choose between a power supply, a power supply with timer function, or a MinMax control unit. The sensor can also be run from a PLC.

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