

Sensors for object detection

Series SK1 0600/0650

- Model with output stage from $\varnothing$ –6.5 mm
- Sensing distance adjustable
- Flush mounting
- Connecting lead or plug connector



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
IM pulse modulation technique (high noise immune)

/ FS(A) max sensing distance / Fill-level switch (adaptive)

M30 model and/or dimension

P output stage PNP, NPN, X (switchable)

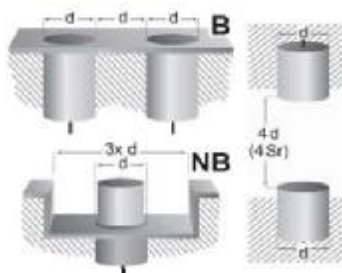
B mounting B=flush

NB=non-flush

S S=N.O. Q=N.C. X=function switchable

(C)PTFE Housing material, e.g. PTFE
CPTFE=complete PTFE

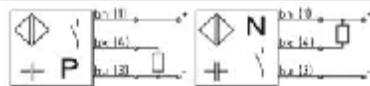
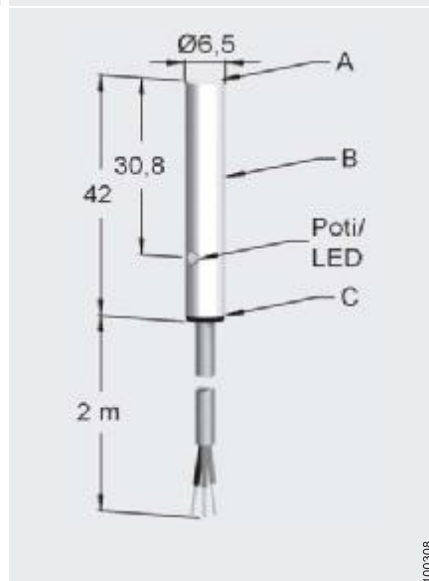
1M2-Y2 cable & connector:
Y2 = connector
1M2 = 1.2m cable length



0,1...1,5



6,5Ø



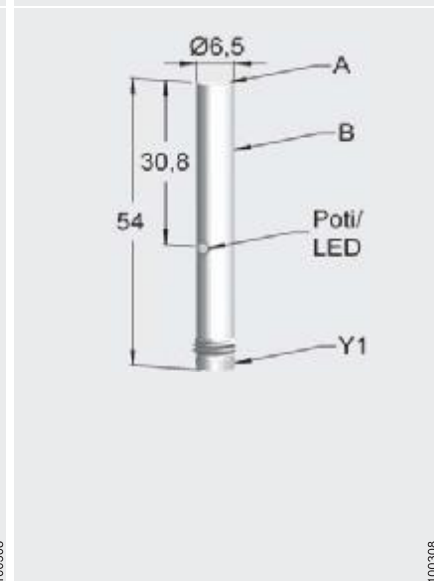
Typ / Type

SK1-1.5-6.5-PBS-VA/PTFE
SK1-1.5-6.5-PBO-VA/PTFE
SK1-1.5-6.5-NBS-VA/PTFE
SK1-1.5-6.5-NBO-VA/PTFE

0,1...1,5



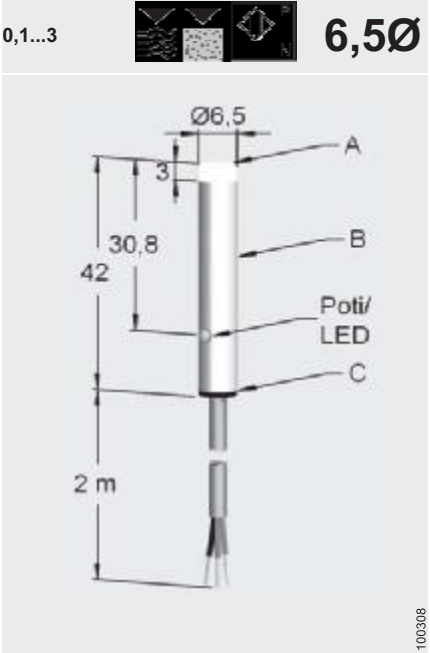
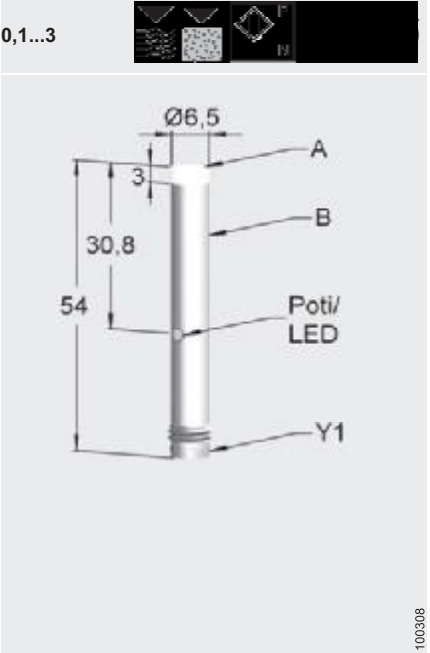
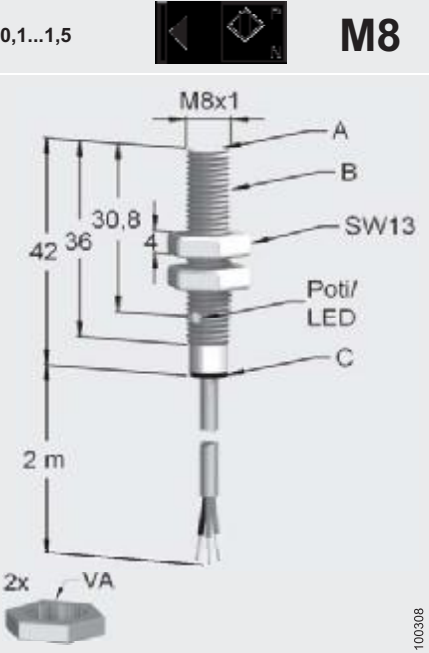
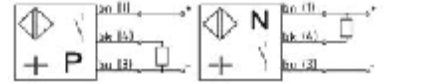
6,5Ø



Typ / Type

SK1-1.5-6.5-PBS-VA/PTFE-Y1
SK1-1.5-6.5-PBO-VA/PTFE-Y1
SK1-1.5-6.5-NBS-VA/PTFE-Y1
SK1-1.5-6.5-NBO-VA/PTFE-Y1

Mounting [flush / nonflush]	[B / NB]	B	B
Operating distance	Sn [mm]	0,1...1,5	0,1...1,5
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]	100	100
Repeat accuracy	R [%SR]	2	2
Operating temperature range	Ta [C°]	-10... 70	-10... 70
Temperature drift [range]	[%SR]	15 [-5... 55]	15 [-5... 55]
Protection class		IP 65	IP 65
Rated insulation voltage	Ui [V]	75 d. c.	75 d. c.
Material of housing		A: PTFE; B: V2A; C: POM	A: PTFE; B: V2A; C: PA
Utilisation category			
Connection		2m / 3x 0,14mm ² PUR	Z10; Z11
Supply voltage range UB	Ub [V]	11...30	11...30
No-load supply current	Iomax. [mA]	10	10
Minimum operational current	Im [mA]		
Operational current	Ie [mA]	50	50
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]	2	2
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	IEC 60947-5-2 : 2004
EMC		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz.	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz.
Associated equipment			SNG-###AC...
Additional functionality			
Application			

0,1...3	0,1...3	0,1...1,5
		
		
Typ / Type	Typ / Type	Typ / Type
SK1-3-6.5-PNBS-VA/PTFE	SK1-3-6.5-PNBS-VA/PTFE-Y1	SK1-1.5-M8-PBS-VA/PTFE
SK1-3-6.5-PNBO-VA/PTFE	SK1-3-6.5-PNBO-VA/PTFE-Y1	SK1-1.5-M8-PBO-VA/PTFE
SK1-3-6.5-NNBS-VA/PTFE	SK1-3-6.5-NNBS-VA/PTFE-Y1	SK1-1.5-M8-NBS-VA/PTFE
SK1-3-6.5-NNBO-VA/PTFE	SK1-3-6.5-NNBO-VA/PTFE-Y1	SK1-1.5-M8-NBO-VA/PTFE
NB	NB	B
0,1...3	0,1...3	0,1...1,5
15	15	15
100	100	100
2	2	2
-10... 70	-10... 70	-10... 70
15 [-5... 55]	15 [-5... 55]	15 [-5... 55]
IP 65	IP 65	IP 65
75 d. c.	75 d. c.	75 d. c.
A: PTFE; B: V2A; C: POM	A: PTFE; B: V2A; C: PA	A: PTFE; B: V2A; C: POM
2m / 3x 0,14mm ² PUR	DC13	DC13
11...30	Z	2m / 3x 0,14mm ² PUR PUR
10	11...30	11...30
50	10	10
2	50	50
- / •	2	2
• / •	- / •	- / •
•	• / •	• / •
•	•	•
IEC 60947-5-2 : 2004	IEC 60947-5-2 : 2004	IEC 60947-5-2 : 2004
IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.3-1.1 Mhz. SNG-###AC...	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.3-1.1 Mhz. SNG-###AC...	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz. SNG-###AC...

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
IM pulse modulation technique (high noise immune)

/ FS(A) max sensing distance / Fill-level switch (adaptive)

M30 model and/or dimension

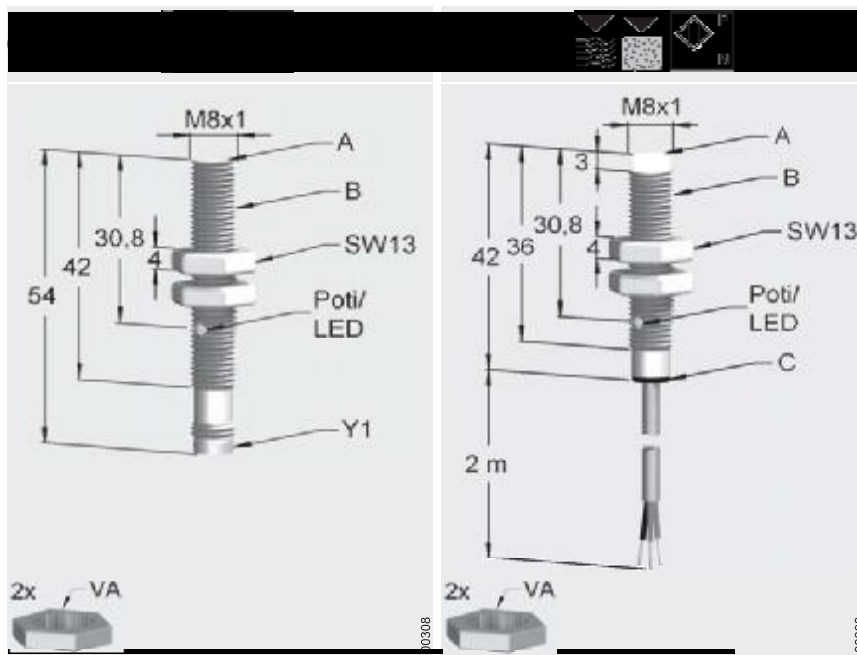
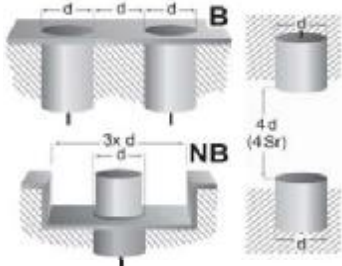
P output stage PNP, NPN, X (switchable)

B mounting B=flush NB=non-flush

S S=N.O. O=N.C. X=function switchable

(C)PTFE Housing material, e.g. PTFE
CPTFE=complete PTFE

1M2-Y2 cable & connector:
Y2 = connector
1M2 = 1.2m cable length



Typ / Type

SK1-1.5-M8-PBS-VA/PTFE-Y1
SK1-1.5-M8-PBO-VA/PTFE-Y1
SK1-1.5-M8-NBS-VA/PTFE-Y1
SK1-1.5-M8-NBO-VA/PTFE-Y1

Typ / Type

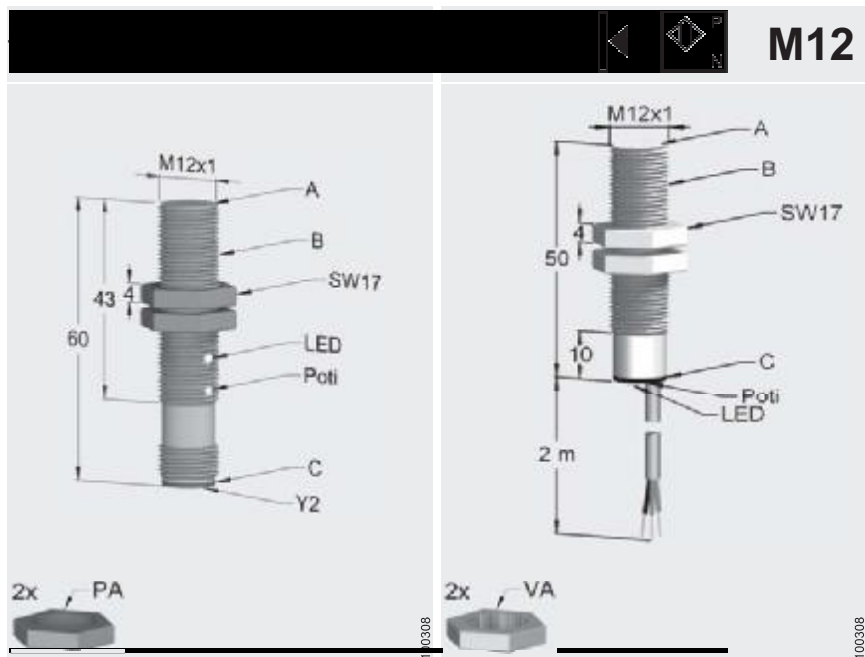
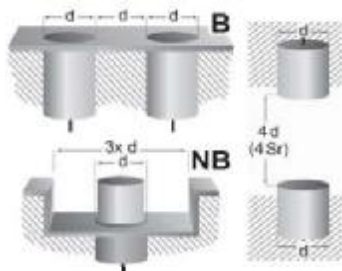
SK1-3-M8-PNBS-VA/PTFE
SK1-3-M8-PNBO-VA/PTFE
SK1-3-M8-NNBS-VA/PTFE
SK1-3-M8-NNBO-VA/PTFE

Mounting [flush / nonflush]		[B / NB]		B		NB	
Operating distance	Sn	[mm]		0,1...1,5		0,1...3	
Hysteresis	H	[%SR]		15		15	
Frequency of operating cycles	f	[Hz]		100		100	
Repeat accuracy	R	[%SR]		2		2	
Operating temperature range	Ta	[C°]		-10... 70		-10... 70	
Temperature drift [range]		[%SR]		15 [-5... 55]		15 [-5... 55]	
Protection class				IP 65		IP 65	
Rated insulation voltage	Ui	[V]		75 d. c.		75 d. c.	
Material of housing				A: PTFE; B: V2A		A: PTFE; B: V2A; C: POM	
Utilisation category				DC13		DC13	
Connection				Z10; Z11		2m / 3x 0,14mm ² PUR	
Supply voltage range UB	Ub	[V]		11...30		11...30	
No-load supply current	Iomax.	[mA]		10		10	
Minimum operational current	Imin	[mA]		50		50	
Operational current	Ie	[mA]		50		50	
Off-state current	Ir	[mA]		2		2	
Voltage drop	Ud @ Ie	[V]		2		2	
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		IEC 60947-5-2 : 2004	
EMC				IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz.		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.25-1.1 Mhz.	
Associated equipment				SNG-###AC...		SNG-###AC...	
Additional functionality							
Application							

10Ø		1..4	M12
Typ / Type SK1-3-M8-PNBS-VA/PTFE-Y1 SK1-3-M8-PNBO-VA/PTFE-Y1 SK1-3-M8-NNBS-VA/PTFE-Y1 SK1-3-M8-NNBO-VA/PTFE-Y1		Typ / Type SK1-4-10-PBS-VA/PTFE SK1-4-10-PBO-VA/PTFE SK1-4-10-NBS-VA/PTFE SK1-4-10-NBO-VA/PTFE	
NB		B	
0,1...3		1... 4	
15		15	
100		100	
2		2	
-10... 70		-30... 70	
15 [-5... 55]		20 [-5... 55]	
IP 65		IP 65	
75 d. c.		75 d. c.	
A: PTFE; B: V2A		A: PTFE; B: V2A; C: POM	
DC13		DC13	
Z		2m / 3x 0,14mm ² PUR	
11...30		12... 35	
10		10	
50		200	
2		0,8	
- / •		- / •	
• / •		• / •	
•		•	
IEC 60947-5-2 : 2004		IEC 60947-5-2 : 2004	
IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.25-1.1 Mhz. SNG-###AC...		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz. SNG-###AC...	

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
IM	pulse modulation technique (high noise immune)
## / FS(A)	max sensing distance / Fill-level switch (adaptive)
M30	model and/or dimension
P	output stage PNP, NPN, X (switchable)
B	mounting B=flush NB=non-flush
S	S=N.O. O=N.C. X=function switchable
(C)PTFE	Housing material, e.g. PTFE CPTFE=complete PTFE
1M2-Y2	cable & connector: Y# = connector 1M2 = 1.2m cable length



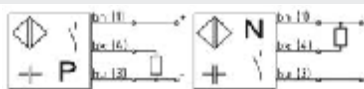
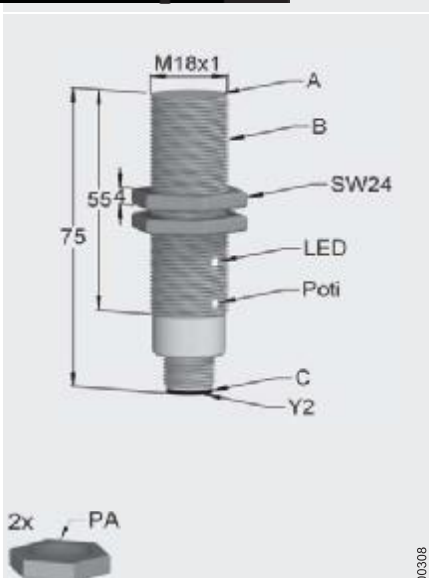
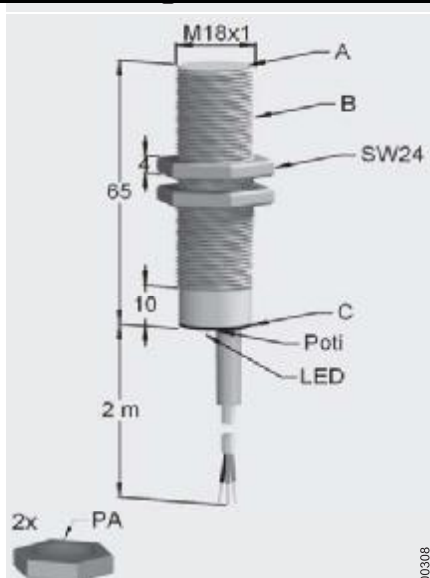
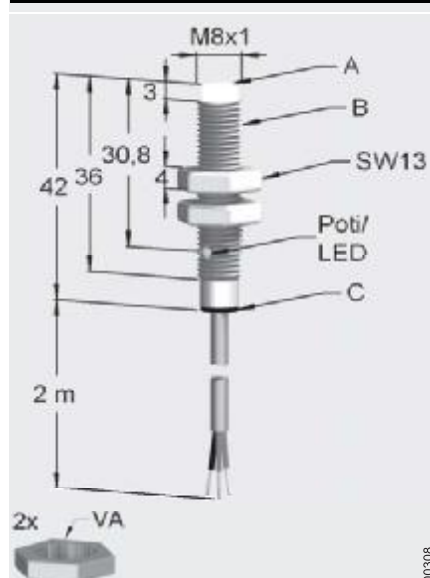
Typ / Type

SK1-4-M12-PBS-PVC-Y2
SK1-4-M12-PBO-PVC-Y2
SK1-4-M12-NBS-PVC-Y2
SK1-4-M12-NBO-PVC-Y2

Typ / Type

SK1-4-M12-PBS-VA/PTFE
SK1-4-M12-PBO-VA/PTFE
SK1-4-M12-NBS-VA/PTFE
SK1-4-M12-NBO-VA/PTFE

Mounting [flush / nonflush]	[B / NB]	B	B
Operating distance	Sn [mm]	1... 4	1... 4
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]	100	100
Repeat accuracy	R [%SR]	2	2
Operating temperature range	Ta [C°]	-30... 60	-30... 70
Temperature drift [range]	[%SR]	20 [-5... 55]	20 [-5... 55]
Protection class		IP 65	IP 65
Rated insulation voltage	Ui [V]	75 d. c.	75 d. c.
Material of housing		A: PVC; B: PVC; C: PA	A: PTFE; B: VA; C: POM
Utilisation category		DC13	DC13
Connection		Z20; Z21	2m / 3x 0,14mm ² PUR
Supply voltage range UB	Ub [V]	12... 35	12... 35
No-load supply current	Iomax. [mA]	10	10
Minimum operational current	Im [mA]		
Operational current	Ie [mA]	200	200
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]	1,6	0,8
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	IEC 60947-5-2 : 2004
EMC		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.4-1.3 Mhz.	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz.
Associated equipment		SNG-###AC...	SNG-###AC...
Additional functionality			
Application			

**Typ / Type**

SK1-3-M8-PNBS-VA/PTFE
SK1-3-M8-PNBO-VA/PTFE
SK1-3-M8-NNBS-VA/PTFE
SK1-3-M8-NNBO-VA/PTFE

NB
0,1...3
15
100
2
-10... 70
15 [-5... 55]
IP 65
75 d. c.
A: PTFE; B: V2A; C: POM
DC13
2m / 3x 0,14mm ² PUR
11...30
10
50
2
- / •
• / •
•

IEC 609

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.25-1.1 Mhz. SNG-###AC...

Typ / Type

SK1-8-M18-PBS-PVC
SK1-8-M18-PBO-PVC
SK1-8-M18-NBS-PVC
SK1-8-M18-NBO-PVC

B
2... 8
15
100
2
-30... 60
15 [-5... 55]
IP 67
75 d. c.
A: PVC; B: PVC; C: PBT
DC13
2m / 3x 0,25mm ² PVC
10... 35
10
300
1,5
- / •
• / •
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.45-1.2 Mhz. SNG-###AC...

Typ / Type

SK1-8-M18-PBS-PVC-Y2
SK1-8-M18-PBO-PVC-Y2
SK1-8-M18-NBS-PVC-Y2
SK1-8-M18-NBO-PVC-Y2

B
2... 8
15
100
2
-30... 60
15 [-5... 55]
IP 67
75 d. c.
A: PVC; B: PVC; C: PA
DC13
Z20; Z21
10... 35
10
300
1,5
- / •
• / •
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.55-2 Mhz. SNG-###AC...

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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
IM pulse modulation technique (high noise immune)

/ FS(A) max sensing distance / Fill-level switch (adaptive)

M30 model and/or dimension

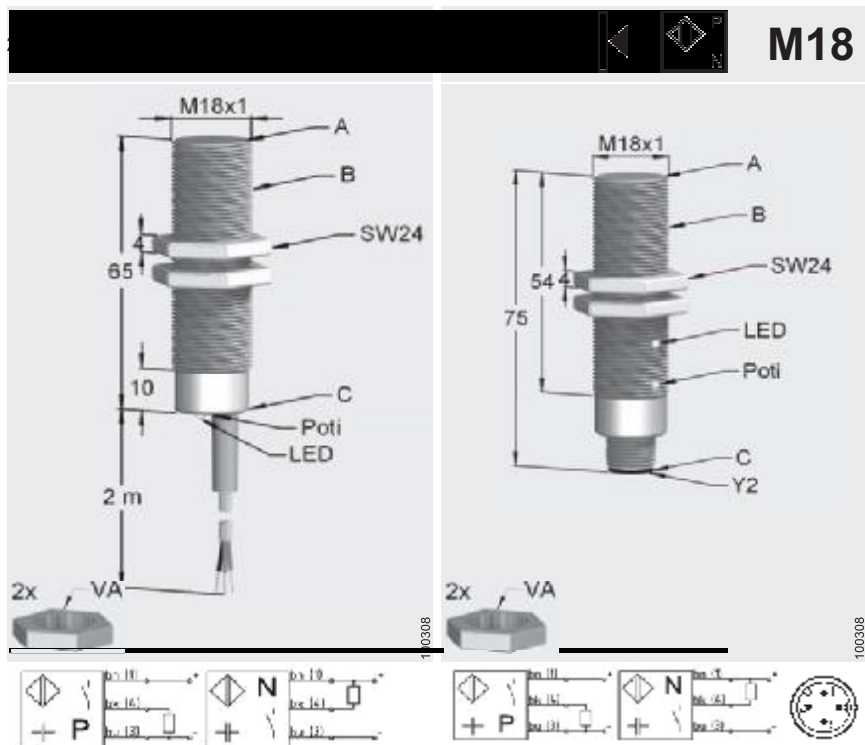
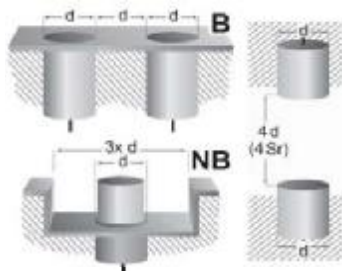
P output stage PNP, NPN, X (switchable)

B mounting B=flush NB=non-flush

S S=N.O. O=N.C. X=function switchable

(C)PTFE Housing material, e.g. PTFE
CPTFE=complete PTFE

1M2-Y2 cable & connector:
Y2 = connector
1M2 = 1.2m cable length



Typ / Type

SK1-8-M18-PBS-VA/PBT
SK1-8-M18-PBO-VA/PBT
SK1-8-M18-NBS-VA/PBT
SK1-8-M18-NBO-VA/PBT

Typ / Type

SK1-8-M18-PBS-VA/PBT-Y2
SK1-8-M18-PBO-VA/PBT-Y2
SK1-8-M18-NBS-VA/PBT-Y2
SK1-8-M18-NBO-VA/PBT-Y2

Mounting [flush / nonflush]	[B / NB]	B	B
Operating distance	Sn [mm]	2... 8	2... 8
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]	100	100
Repeat accuracy	R [%SR]	2	2
Operating temperature range	Ta [C°]	-30... 70	-30... 70
Temperature drift [range]	[%SR]	15 [-5... 55]	15 [-5... 55]
Protection class		IP 67	IP 67
Rated insulation voltage	Ui [V]	75 d. c.	75 d. c.
Material of housing		A: PBT; B: VA; C: PBT	A: PBT; B: VA; C: PA
Utilisation category		DC13	DC13
Connection		2m / 3x 0,25mm² PVC	Z20; Z21
Supply voltage range UB	Ub [V]	10... 35	10... 35
No-load supply current	Iomax. [mA]	10	10
Minimum operational current	Im [mA]		
Operational current	Ie [mA]	300	300
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]	1,5	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	IEC 60947-5-2 : 2004
EMC		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.5-0.8 Mhz.	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.75-2.5 Mhz.
Associated equipment		SNG-###AC...	SNG-###AC...
Additional functionality			
Application			

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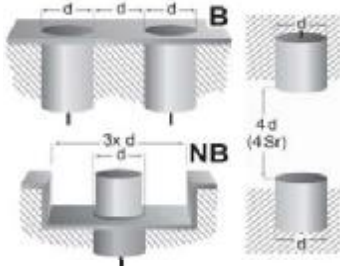
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B mounting B=flush
NB=non-flush

S S=N.O. O=N.C.
X=function switchable

(C)PTFE Housing material, e.g. PTFE
CPTFE=complete PTFE

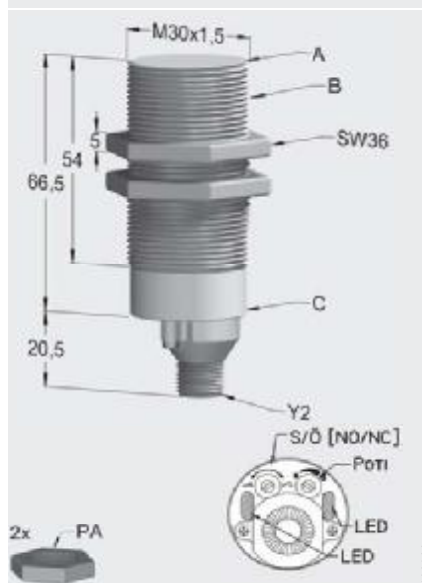
1M2-Y2 cable & connector:
Y2 = connector
1M2 = 1.2m cable length



1..20



M30



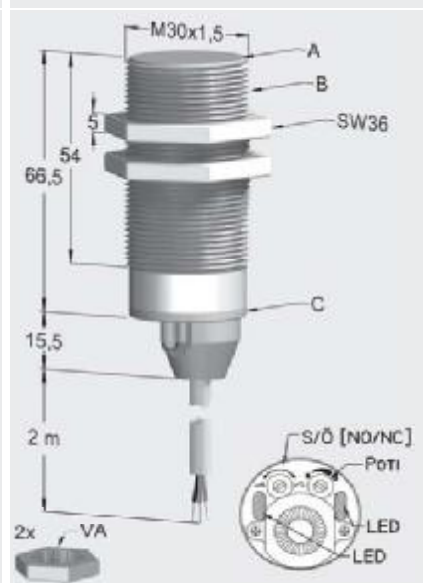
Typ / Type

SK1-20-M30-PBX-PBT-Y2
SK1-20-M30-NBX-PBT-Y2

1..20



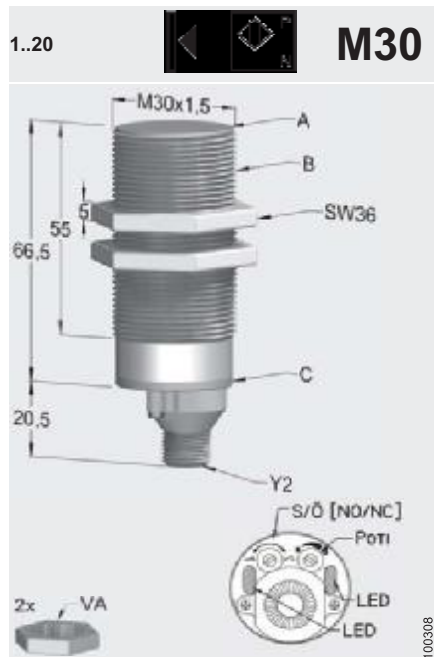
M30



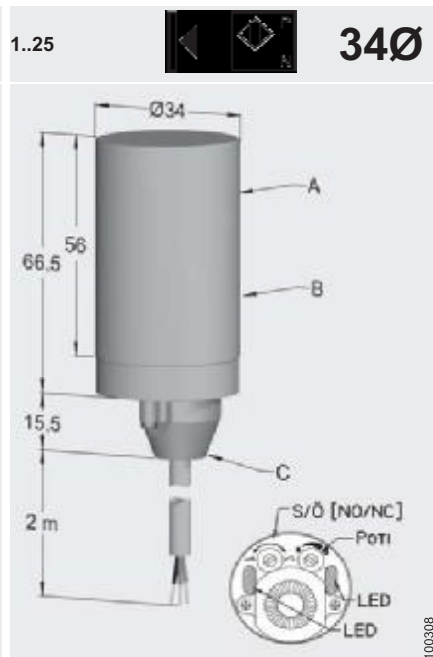
Typ / Type

SK1-20-M30-PBX-VA/PBT
SK1-20-M30-NBX-VA/PBT

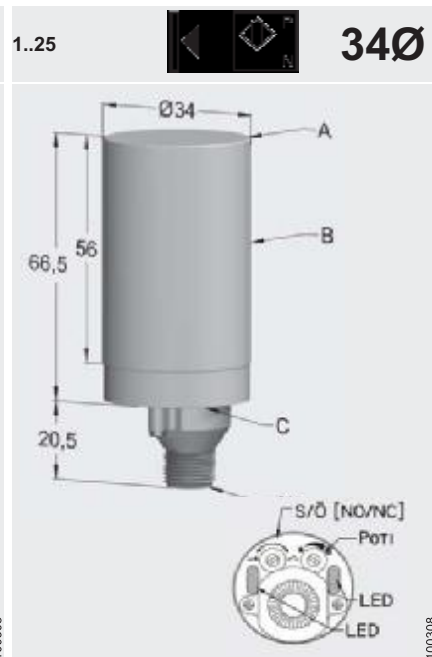
Mounting [flush / nonflush]	[B / NB]	B	B
Operating distance	Sn [mm]	1... 20	1... 20
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]	100	100
Repeat accuracy	R [%SR]	5	5
Operating temperature range	Ta [C°]	-30... 70	-30... 70
Temperature drift [range]	[%SR]	20 [-5... 55]	20 [-5... 55]
Protection class		A, B: IP 66 / IP 68; C: IP 64	A, B: IP 66 / IP 67; C: IP 64
Rated insulation voltage	Ui [V]	75 d. c.	75 d. c.
Material of housing		A: PBT; B: PBT; C: PBT/PE	A: PBT; B: VA; C: PBT/PE
Utilisation category		DC13	DC13
Connection		Z20; Z21	2m / 3x 0,34mm ² PUR
Supply voltage range UB	Ub [V]	10... 35	10... 35
No-load supply current	Iomax. [mA]	<15	<15
Minimum operational current	Im [mA]		
Operational current	Ie [mA]	300	300
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]	1,8	1,8
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	IEC 60947-5-2 : 2004
EMC		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-2.5 Mhz.	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-2.5 Mhz.
Associated equipment		SNG-###AC...	SNG-###AC...
Additional functionality		S / O NO / NC	S / O NO / NC
Application			



Typ / Type
SK1-20-M30-PBX-VA/PBT-Y2
SK1-20-M30-NBX-VA/PBT-Y2



Typ / Type
SK1-25-34-PBX-PVC
SK1-25-34-NBX-PVC



Typ / Type
SK1-25-34-PBX-PVC-Y2
SK1-25-34-NBX-PVC-Y2

B
1... 20
15
100
5
-30... 70
20 [-5... 55]
A, B: IP 66 / IP 67; C: IP 64
75 d. c.
A: PBT; B: VA; C: PBT/PE
DC13
Z20; Z21
10... 35
<15
300
1,8
•/•
•/•
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-2.5 Mhz. SNG-###AC...

S / Ø NO / NC



B
1... 25
15
100
5
-30... 60
20 [-5... 55]
A, B: IP 66 / IP 68; C: IP 64
75 d. c.
A: PVC; B: PVC; C: PBT/PE
DC13
2m / 3x 0,34mm ² PUR
10... 35
<15
300
1,8
•/•
•/•
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-2.4 Mhz. SNG-###AC...

S / Ø NO / NC



B
1... 25
15
100
5
-30... 60
20 [-5... 55]
A, B: IP 66 / IP 68; C: IP 64
75 d. c.
A: PVC; B: PVC; C: PBT/PE
DC13
Z20; Z21
10... 35
<15
300
1,8
•/•
•/•
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-2.5 Mhz. SNG-###AC...

S / Ø NO / NC



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
IM pulse modulation technique (high noise immune)

/ FS(A) max sensing distance / Fill-level switch (adaptive)

M30 model and/or dimension

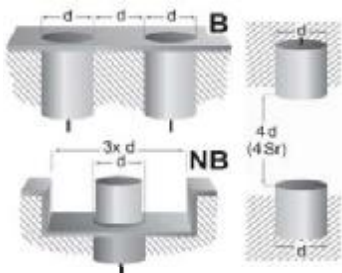
P output stage PNP, NPN, X (switchable)

B mounting B=flush
NB=non-flush

S S=N.O. O=N.C.
X=function switchable

(C)PTFE Housing material, e.g. PTFE
CPTFE=complete PTFE

1M2-Y2 cable & connector:
Y2 = connector
1M2 = 1.2m cable length



6 ±10%

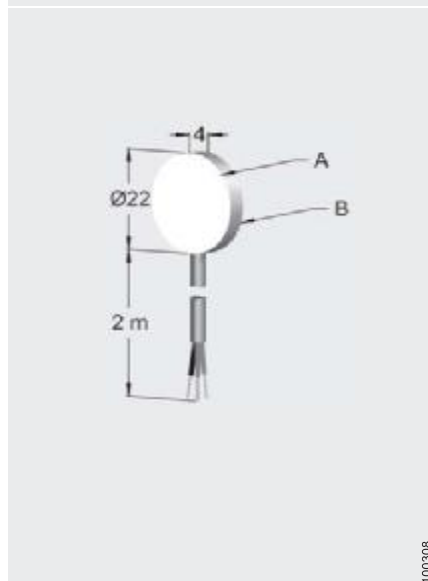


22Ø/4

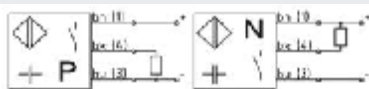
2..15



30Ø/4



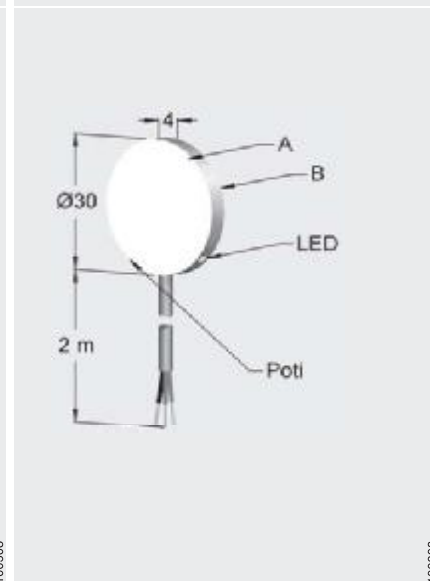
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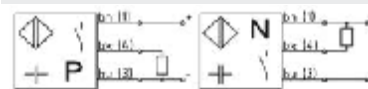
Typ / Type

SK1-6F-22/4-PBS-VA/PTFE

SK1-6F-22/4-NBS-VA/PTFE



100308



Typ / Type

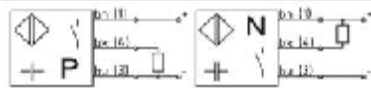
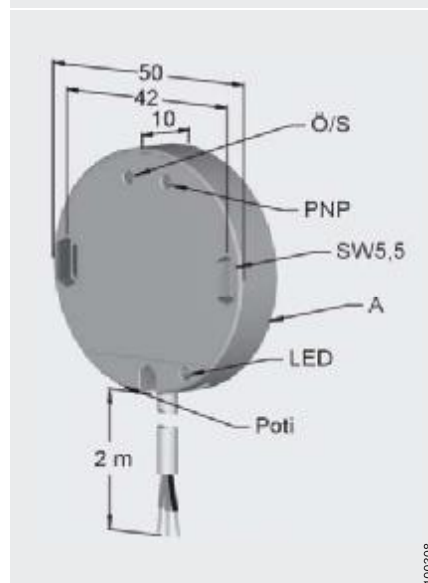
SK1-15-30/4-PBS-VA/PTFE

SK1-15-30/4-PBO-VA/PTFE

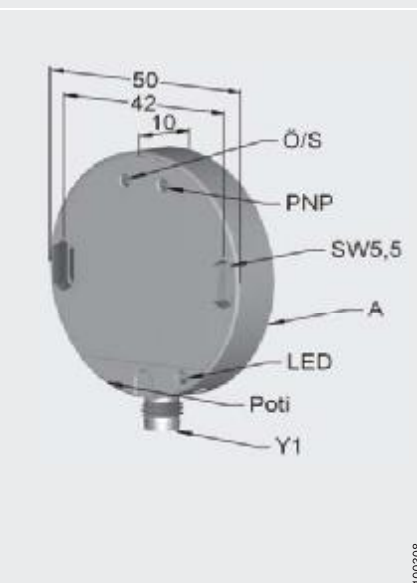
SK1-15-30/4-NBS-VA/PTFE

SK1-15-30/4-NBO-VA/PTFE

Mounting [flush / nonflush]	[B / NB]	B	B
Operating distance	Sn [mm]	6... ±10%	2... 15
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]	100	100
Repeat accuracy	R [%SR]	2	2
Operating temperature range	Ta [C°]	-30... 70	-30... 70
Temperature drift [range]	[%SR]	10 [-5... 55]	10 [-5... 55]
Protection class		IP 67	IP 67
Rated insulation voltage	Ui [V]	75 d. c.	75 d. c.
Material of housing		A: PTFE; B: V2A	A: PTFE; B: V2A
Utilisation category		DC13	DC13
Connection		2m / 3x 0,14 mm² PUR	2m / 3x 0,14 mm² PUR
Supply voltage range UB	Ub [V]	12... 30	10... 35
No-load supply current	Iomax. [mA]	< 10	< 10
Minimum operational current	Im [mA]		
Operational current	Ie [mA]	300	300
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]	0,8	0,8
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	IEC 60947-5-2 : 2004
EMC		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-0.6 Mhz.	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.15-1.7 Mhz.
Associated equipment		SNG-###AC...	SNG-###AC...
Additional functionality			
Application			

**Typ / Type**

SK1-25-50/10-XBX-POM

**Typ / Type**

SK1-25-50/10-XBX-POM-Y1

B
2... 25
20
50
2
-30... 60
20 [-5... 55]
IP 67
75 d. c.
POM
DC13
2m / 3x 0,25mm ² PVC
10... 30
< 15
150
2
- / •
• / •
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.55-1.6 Mhz. SNG-###AC...

PNP / NPN
S / Ö NO / NC

B
2... 25
20
50
2
-30... 60
20 [-5... 55]
IP 65
75 d. c.
POM
DC13
Z10; Z11
10... 30
< 15
150
1,5
- / •
• / •
•

IEC 60947-5-2 : 2004

IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.55-1.6 Mhz. SNG-###AC...

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.

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

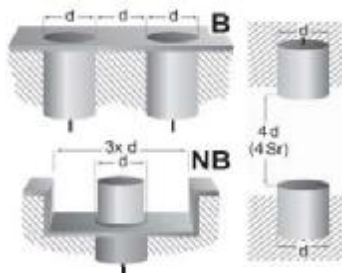
P output stage PNP, NPN, X (switchable)

B mounting B=flush
NB=non-flush

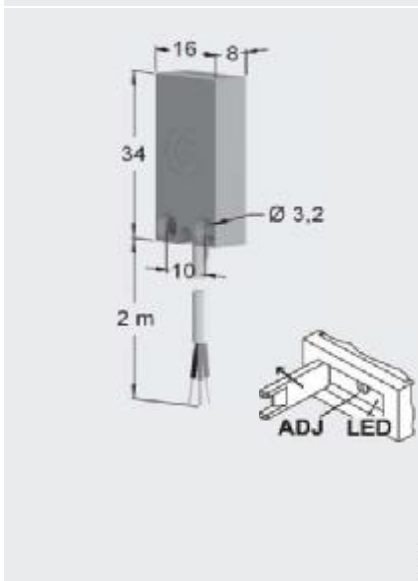
S S=N.O. O=N.C.
X=function switchable

(C)PTFE Housing material, e.g. PTFE
CPTFE=complete PTFE

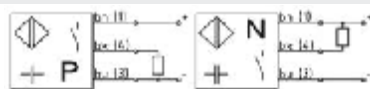
1M2-Y2 cable & connector:
Y2 = connector
1M2 = 1.2m cable length



1...8 mm



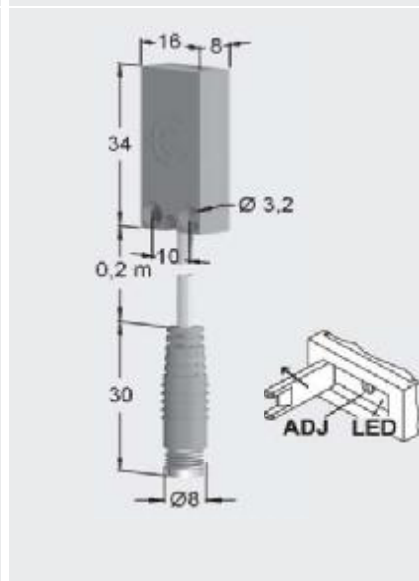
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Typ / Type

SK1-8-34/16/8-PBS-PP
SK1-8-34/16/8-PBO-PP
SK1-8-34/16/8-NBS-PP
SK1-8-34/16/8-NBO-PP

1...8 mm



100308



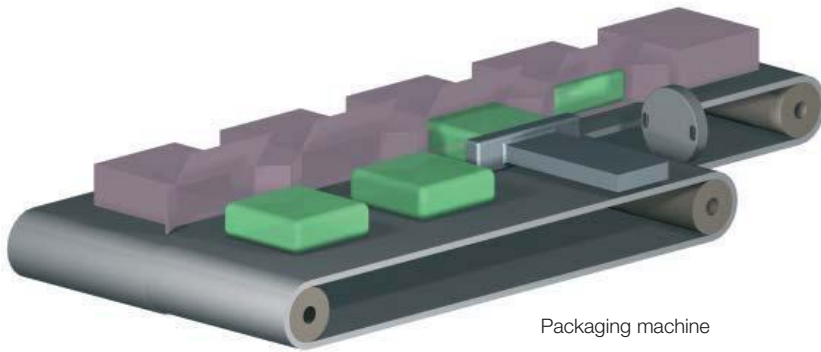
Typ / Type

SK1-8-34/16/8-PBS-PP-M2/Y1
SK1-8-34/16/8-PBO-PP-M2/Y1
SK1-8-34/16/8-NBS-PP-M2/Y1
SK1-8-34/16/8-NBO-PP-M2/Y1

Mounting [flush / nonflush]	[B / NB]	B	B
Operating distance	Sn [mm]	1...8	1...8
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]	100	100
Repeat accuracy	R [%SR]	5	5
Operating temperature range	Ta [C°]	-30... 70	-30... 70
Temperature drift [range]	[%SR]	20 [-5... 55]	20 [-5... 55]
Protection class		IP 67	IP 67
Rated insulation voltage	Ui [V]	75 d. c.	75 d. c.
Material of housing		PP	PP
Utilisation category		DC13	DC13
Connection		2m / 3x 0,14 mm ² PUR	0,2m / 3x 0,14mm ² PUR; Z10; Z11
Supply voltage range UB	Ub [V]	12... 30	12... 30
No-load supply current	Iomax. [mA]	< 10	< 10
Minimum operational current	Im [mA]	-	-
Operational current	Ie [mA]	50	50
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]	1,5	1,5
Time delay before availability	tv [ms]	< 100	< 100
Indicator [UB / Output]		- / •	- / •
Short circuit- overload-protection		• / •	• / •
Reverse polarity protection		•	•
Conformity	EMC EEC-direct.	IEC 60947	IEC 60947
EMC		IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.25-3 Mhz.	IEC 61000-4-6 (Testlevel 3V) Functional errors may occur in partition of working frequency 0.25-3 Mhz.
Associated equipment		SNG-###AC...	SNG-###AC...
Additional functionality			
Application			



Applications



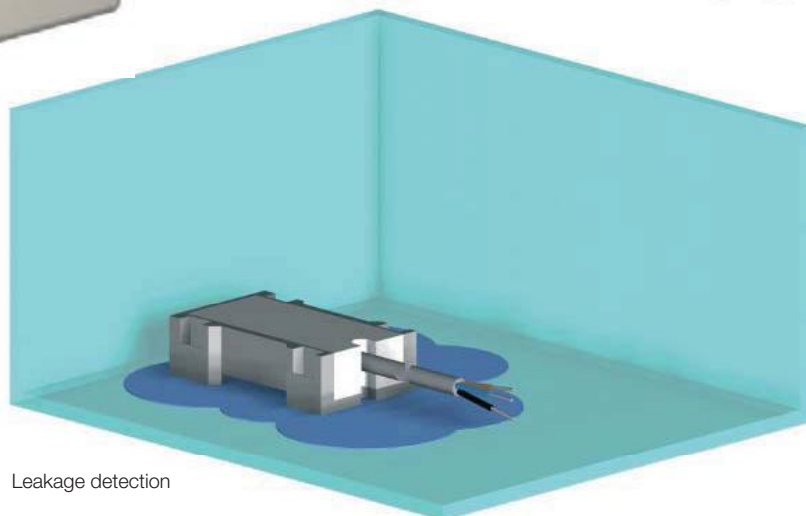
Packaging machine



Bulk material sensing through



Sensing small metal or plastic parts in a tube type feeder



Leakage detection