

Sensors for the high temperature range

Series SK-HT 0900

- Ambient temperature up to 180 °C and up to 250 °C
- Housing M18, M30 and 3/8" in V2A/PTFE
- Connection sensor lead with plug connector
- Non-flush mountable
- Adjustment using sensor amplifiers 0400

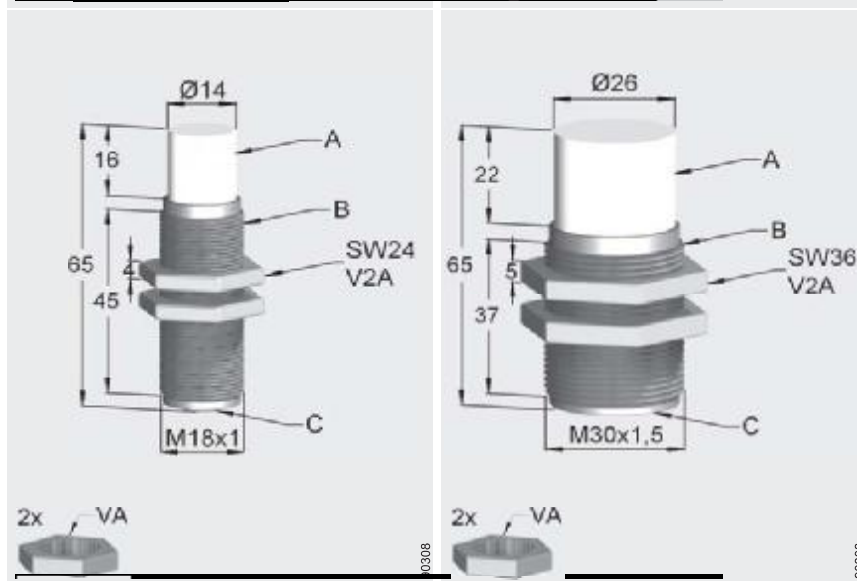
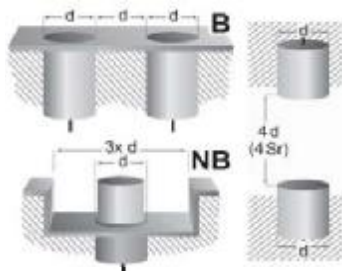


9.01 –
9.03



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

SK-HT250-10-M18-NB-VA/PTFE

Typ / Type

SK-HT250-20-M30-NB-VA/PTFE

Mounting [flush / nonflush]	[B / NB]	NB	NB
Operating distance	Sn [mm]	1... 10	1... 20
Hysteresis	H [%SR]	15	15
Frequency of operating cycles	f [Hz]		
Repeat accuracy	R [%SR]	2	2
Operating temperature range	Ta [C°]	-180... 250	-180...250
Temperature drift [range]	[%SR]		
Protection class		IP 66 / IP 54	IP 66 / IP 54
Rated insulation voltage	Ui [V]		
Material of housing		A: PTFE; B: V2A; C: PTFE/MS/Cr	A: PTFE; B: V2A; C: PTFE/MS/Cr
Utilisation category			
Connection		SLK-HT	SLK-HT
Supply voltage range UB	Ub [V]		
No-load supply current	Iomax. [mA]		
Minimum operational current	Im [mA]		
Operational current	Ie [mA]		
Off-state current	Ir [mA]		
Voltage drop	Ud @ Ie [V]		
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 (3V) Functional errors may occur in frequency range 0.25-0.6 Mhz (sensor grounded)	IEC 61000-4-6 (3V) Functional errors may occur in frequency range 0.25-0.6 Mhz (sensor grounded)
Associated equipment		SLK-HT	SLK-HT
Additional functionality			
Application			

Sensor power packs

Series SNG 1200

- Clamps housing width 22.5 mm
- Quick-mount
- Relay output
- Supply voltage 230 VAC or 115 VAC
- Sensor input PNP and NPN
- Min-Max control

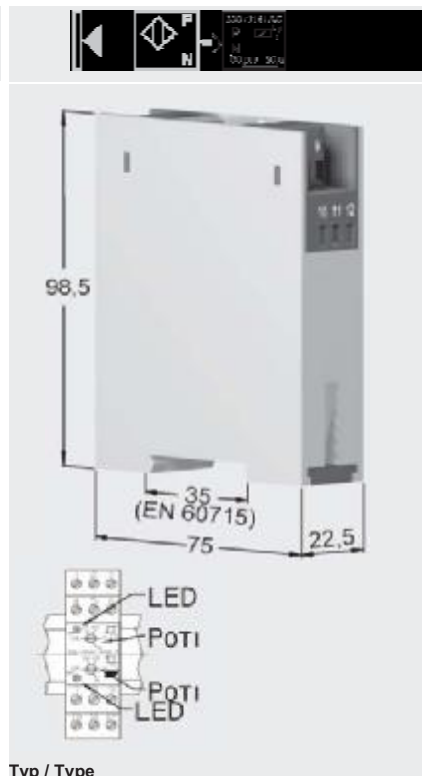
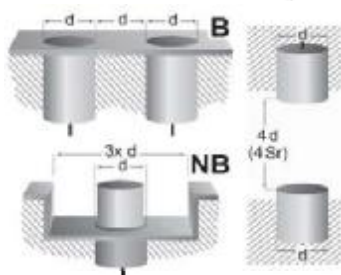


12.01 -
12.03



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)
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B	mounting B=flush NB=non-flush
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(C)PTFE	Housing material, e.g. PTFE CPTFE=complete PTFE
1M2-Y2	cable & connector: Y# = connector 1M2 = 1.2m cable length



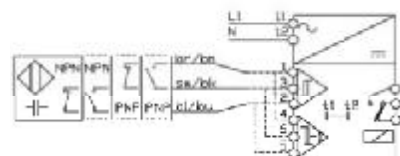
Typ / Type
SNG-230AC/24DC-T
SNG-115AC/24DC-T

application notes



Not for use with XDC-output stage (e.g. microLEVEL)

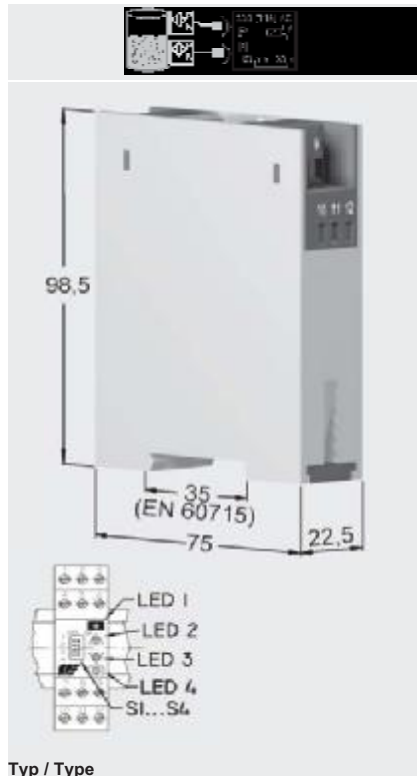
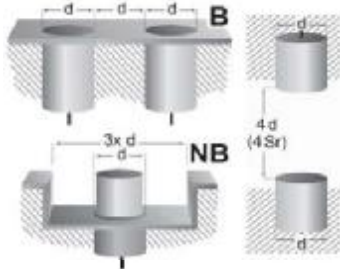
Wiring diagramm



Mounting [flush / nonflush]	[B / NB]	
Operating distance	Sn [mm]	
Hysteresis	H [%SR]	
Frequency of operating cycles	f [Hz]	10
Repeat accuracy	R [%SR]	
Operating temperature range	Ta [C°]	-30... 70
Temperature drift [range]	[%SR]	
Protection class		IP 40 / 20
Rated insulation voltage	Ui [V]	
Material of housing		Makrolon 8020, 2800
Utilisation category		
Connection		Klemmen
Supply voltage range UB	Ub [V]	230 (115) V 40... 60 Hz
No-load supply current	Iomax. [mA]	20 / 40
Minimum operational current	Im [mA]	
Operational current	Ie [mA]	380VAC / 250VDC / 8A
Off-state current	Ir [mA]	
Voltage drop	Ud @ Ie [V]	
Time delay before availability	tv [ms]	
Indicator [UB / Output]		- / •
Short circuit- overload-protection		
Reverse polarity protection		
Conformity	EMC EEC-direct.	
EMC		
Associated equipment		
Additional functionality		50ms...30s 50ms...30s
Application		

Type code (abstract)

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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: Y=connector 1M2 = 1.2m cable length



Typ / Type
SNG-230AC-MINMAX
SNG-115AC-MINMAX

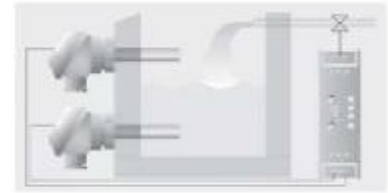
Mounting [flush / nonflush]	[B / NB]	
Operating distance	Sn	[mm]
Hysteresis	H	[%SR]
Frequency of operating cycles	f	[Hz]
Repeat accuracy	R	[%SR]
Operating temperature range	Ta	[C°]
Temperature drift [range]		[-30... 70]
Protection class		IP 40 / 20
Rated insulation voltage	Ui	[V]
Material of housing		Makrolon 8020, 2800
Utilisation category		
Connection		Klemmen
Supply voltage range UB	Ub	[V]
No-load supply current	Iomax.	[mA]
Minimum operational current	Im	[mA]
Operational current	Ie	[mA]
Off-state current	Ir	[mA]
Voltage drop	Ud @ Ie	[V]
Time delay before availability	tv	[ms]
Indicator [UB / Output]		- / •
Short circuit- overload-protection		
Reverse polarity protection		
Conformity	EMC EEC-direct.	IEC 61010-1 73/23
EMC		
Associated equipment		
Additional functionality		Min Sensor: 0,2 s / 5s Max-Sensor: 0,2s / 5s INIT-set-up
Application		

application notes

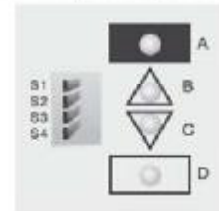


Not for use with XDC-output stage
(e.g. microLEVEL)

Function



When both sensors are de-activated, the relay switches on "LED-empty" lights up (contact 7/9 locked out). When the minimum sensor gives a closed signal, the "LED-filling" illuminates. As soon as both sensors are activated, the relay switches off "LED-full" lights up (contact 7/9 open). When the maximum sensor signals open, the "LED indicating empty" will light up. The relay will not switch on again until both sensors are de-activated. Further functions are possible with the Mini-Dip-Switch (see below).



Dip-Switch Function

Sensing setting (sketch) = as-delivered condition

S1 Time-delay Max sensor

(off: approx. 0.2 sec; on: approx. 5 sec.)

S2 Time-delay Min sensor

(off: approx. 0.2 sec; on: approx. 5 sec.)

S3 Power-on set-up (off: filling; on: emptying)

S4 Output (Relay invers)

Display

A fill - B filling - C emptying - D empty

Features

- Min/Max level sensor controls
- automatical adapting PNP and NPN
- Connection points for two sensors SK-1 series (N.O.)
- Short circuit proof on the DC side
- Separate switchable delays for either Min - Max sensor from approx. 0,2 sec / 5sec

Wiring diagram

