

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

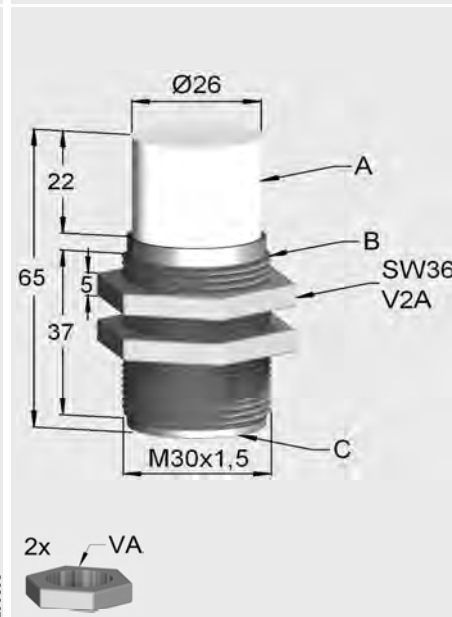
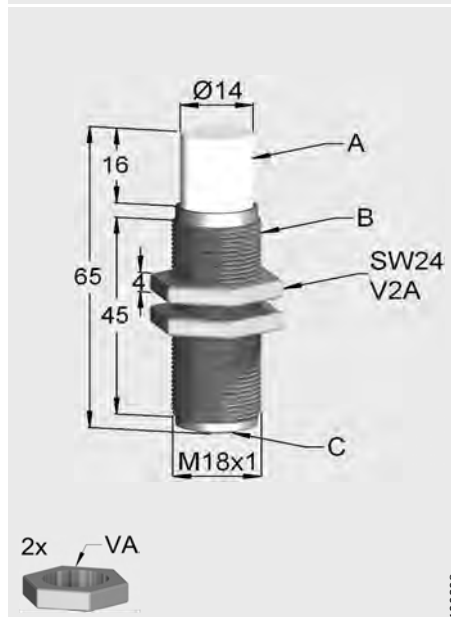
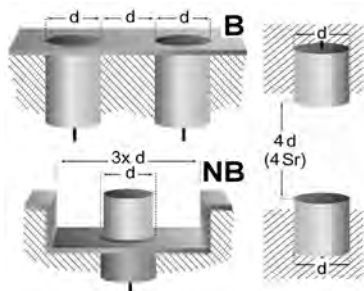


9.01 –
9.03



Type code (abstract)

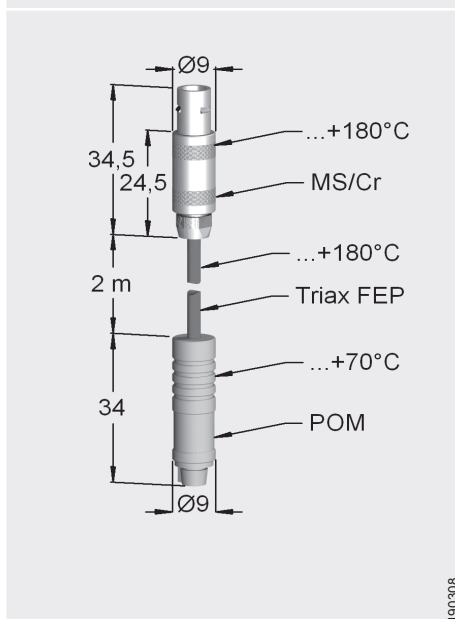
SK	sensor capacitive, w/o amplifier
SKF	sensor cap., w/o amplifier, flexible
SK1	sensor capacitive, self-contained
SV(D)	sensor amplifier (dynamic)
SNG	sensor power pack
HT##	high temperature use
TM	pulse modulation technique (High noise immune)
## / FS(A)	max sensing distance / Fill-level switch (adaptive)
M30	model and/or dimension
P	output stage PNP, NPN, X (switchable)
B	mounting B=flush NB=non-flush
S	S=N.O. Ö=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			



The capacitive high temperature sensors are especially suitable for applications where the sensor head is exposed to a high ambient temperature, or comes directly into contact with hot materials. The units are used as fill level detectors in liquids and bulk goods, or as distance sensors for detecting block materials in hot surroundings.

IEC 60947-5-2 : 2004

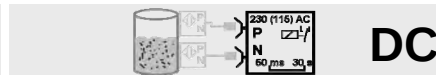
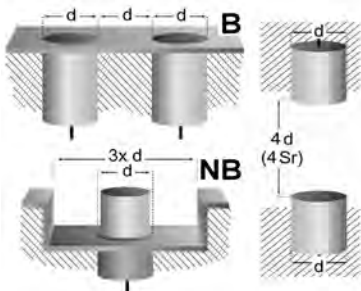
see SK-HT### sensors

SV-; SNG-...-K & SL-YA-m20; SL-YAZA-3m

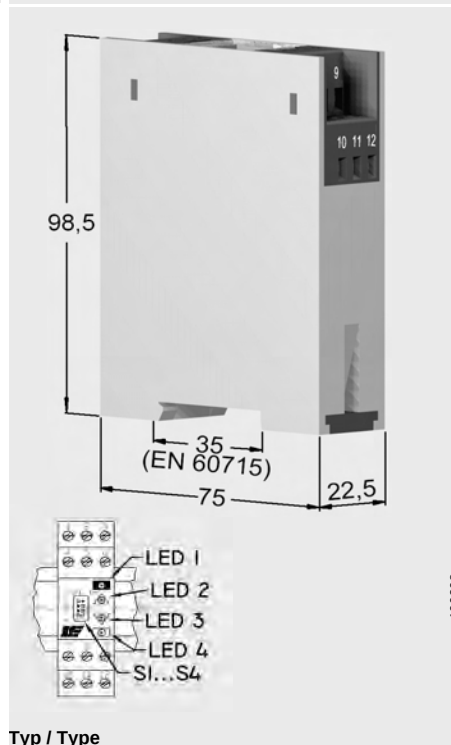


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SNG	sensor power pack
HT###	high temperature use
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## / FS(A)	max sensing distance / Fill-level switch (adaptive)
M30	model and/or dimension
P	output stage PNP, NPN, X (switchable)
B	mounting B=flush 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



DC



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

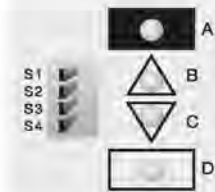


Not for use with XDC-output stage (e.g. microLEVEL)

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)

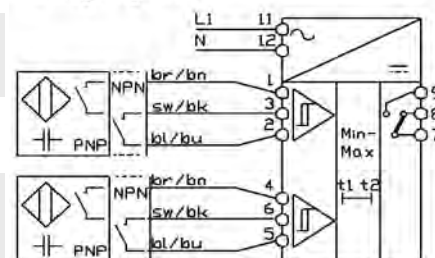
Display

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 diagramm



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]		[%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]
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 73/23
EMC		
Associated equipment		
Additional functionality		Min Sensor: 0,2 s / 5s Max-Sensor: 0,2s / 5s INIT-set-up
Application		