

Level- and temperature sensor

NT 63-WHG

In hydraulics and lubrication technology the liquid level of oil tanks must be monitored continuously. Here, modern factory automation requires compatible signals. To minimise production costs and the space required on tanks, it makes sense to use one monitoring device for both the monitoring of the liquid level and oil temperature for example. The Nivotemp series meets virtually all requirements arising in this area of application.

Certification pursuant to the Federal Water Act

Connecting flange as per DIN 24557 Part 2

Continuous liquid level measurement

Continuous liquid level and temperature measurement

Analog output 4-20 mA

Resolution 4 mm (liquid level)

Proven and tested highly dynamic float system

Float optionally available in stainless steel

Immersion tube length up to 1420 mm (longer upon request)



Technical Data NT 63-WHG

Basic unit

K = continuous level and temperature measurement
 KN = continuous level measurement

Version	MS	VA
Operating pressure:	max. 1 bar	max. 1 bar
Medium temperature:	-20 °C to +80 °C	-20 °C to +80 °C
Float:	SK604	SK221
Min. fluid density:	0.80 kg/dm ³	0.85 kg/dm ³
Lengths (all versions):	280, 370, 500, 670, 820, 970, 1120, 1270 and 1420 mm (other lengths available upon request)	

Material/Version

Float:	PU	1.4571
Immersion tube:	Brass	Brass
Flange DIN 24557 Part 2:	PA	PA
Weight at L=280 mm:	approx. 200 g	approx. 300 g
Each 100 mm add:	approx. 30 g	approx. 50 g

Includes:

Mounting screws (quantity 6) and rubberised cork seal.

Options

Stilling tube (SSR):	VA	VA
----------------------	----	----

Analogue version

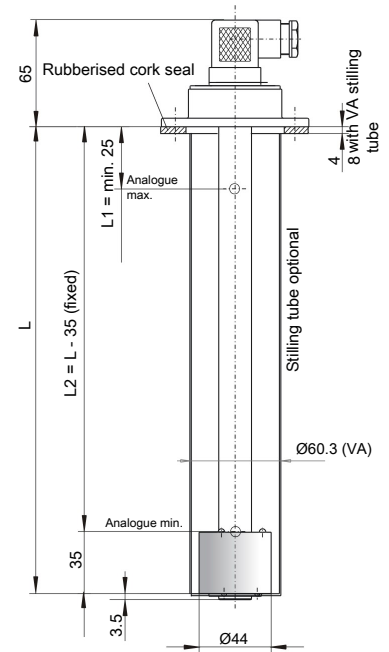
Ambient temperature:	-20 °C to 80 °C	
Operating voltage (U _B):	10 – 30 V DC	10 – 30 V DC
Analysis display electronics accuracy:	± 1 % from end value	± 1 % from end value
Output:	4-20 mA	4-20 mA (0-100 °C*) *Other ranges upon request
Max. burden Ω:	$= (U_B - 7.5 \text{ V}) / 0.02 \text{ A}$	$= (U_B - 7.5 \text{ V}) / 0.02 \text{ A}$

Intake sizes (all versions)

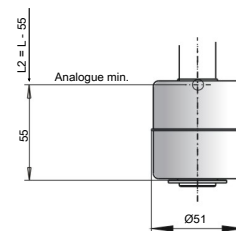
Level	Temperature
Measuring principle: reed-contact resolution 4 mm	Measuring principle: Pt100 Cl. B, DIN EN 60751 Tolerance ± 0.8 °C

Dimensions

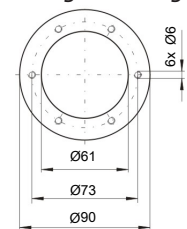
Basic model



SK 221 Float



Flange drawing



Ordering instructions NT 63-WHG

Model key

Model designation	NT 63-□□□□□-WHG-□□	Optional SSR Stilling tube
Measuring mode		Length (max. 1420 mm)
K	Level and temperature measurement	280
KN	Level measurement only	370
Version		500
MS	Brass tube + PU float	670
MSVA	Brass tube + VA float	820
Plug connection		970
M3	DIN EN 175301-803	1120
M12	DIN EN 61076-2-201	1270
		1420

Another accessory offered is a programmable display and control unit for displaying and monitoring measured variables, see data sheet no. 180201.

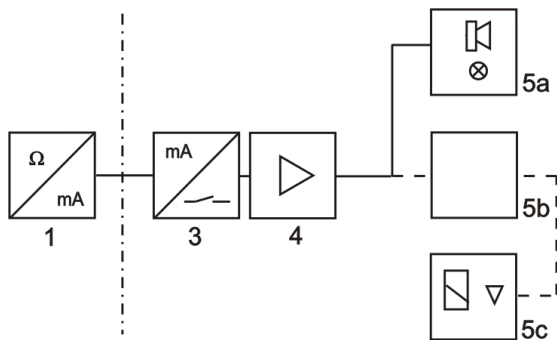
Accessories

Item no.	Description
9144 05 0010	Connecting cable M12x1, 4-pin, 1.5 m, angular coupling and straight plug
9144 05 0046	Connecting cable M12x1, 4-pin, 3.0 m, angular coupling and straight plug
9144 05 0047	Connecting cable M12x1, 4-pin, 5.0 m, angular coupling and strands

Ordering example

You require:	Level and temperature measurement with 4 mm resolution, brass version with M12 plug connector and length L = 670 mm
Order:	NT 63-K-MS-M12-670-WHG

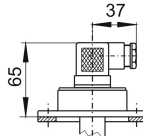
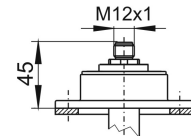
Overfill safety block diagram



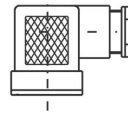
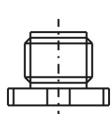
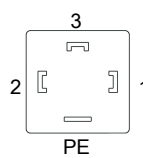
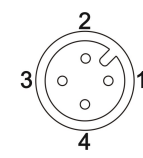
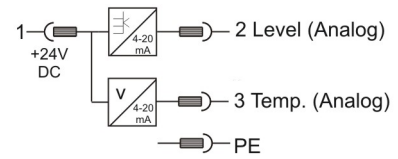
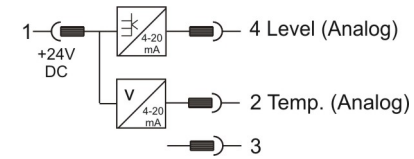
1	Level sensor with built-in transducer (63 K-WHG, 63 KN-WHG)	5a	Signalling unit with lamp and horn
3	Limit signal switch	5b	Control unit
4	Signal amplifier	5c	Actuator

Standard pin assignment NT 63-K-WHG, NT 63-KN-WHG

Plug connection

	M3	M12 (base)
Dimensions		
Number of pins	3-pin + PE	4-pin
DIN EN	175301-803	61076-2-101
Degree of protection	IP65	IP67*
Cable fitting	PG11	

*With moulded plug top

	M3	M12 (base)
		
Connection schematic		
K continuous level and temperature measurement		
KN continuous level measurement	