LSK x2x Conductive Level Sensor

Wetted parts in acid-proof, stainless steel or PEEK

Compact, food compatible, hygienic design

Process temperature -20...140°C

Optimised flow geometry

Millimetre precise switch point

Installation in pipes from DN25 and upwards

Optional PTFE coating

Optional switching electronics (LKP100)

LSK020

LSK120

LKP100

LSK220

Description

The conductive level sensor LSK is used for level detection and dry run protection in conductive liquids.

The LSK measures the resistance between the ground potential and the sensing element covered by the conductive liquid.

The tank or pipe side acts as the ground potential. If the tank is made of a non-conducting material a ground electrode must be installed.

The LSK provides no current output by itself. An evaluation module e.g. LKP 100 must be installed providing a 50 mA output signal.

The hygienic installation is ensured by using a hygienic process weld-in sleeve e.g. PM 020. The rod electrode can be shortened to any required length simply by cutting the length.

The LSK is well suitable for CIP and SIP processes.

BOURDON HAENNI

made to measure

Technical Data

Sensor	
Principle	Resistive measurement
Process connection	G1/2 hygienic
Stub	ø8 mm
Rod	ø4 mm
Electrode	20...200 cm, see "Ordering Details"
Insulating material	PEEK

Electrical connection	
Cable gland M16	Plast
Plug M12	Nickel-plated brass

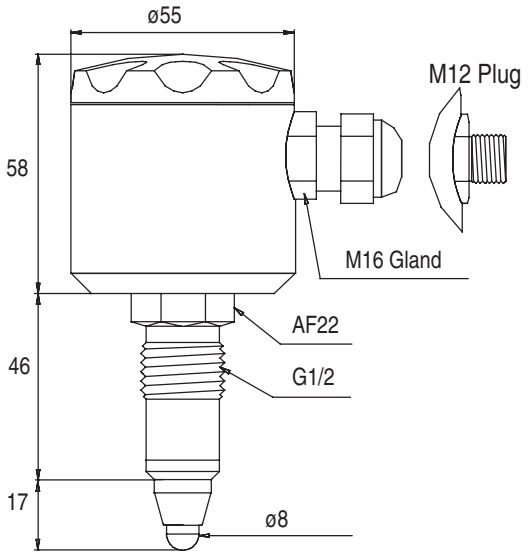
Mechanical data	
Housing	Stainless Steel, W1.4301/AISI 304
Process conn. and rod	Stainless Steel, W1.4404/AISI 316 L
Protection class	IP67
Media pressure	Max. 16 bar
Adapters	Refer to “Accessories” data sheet
Powder Coating	PTFE, Accofal 3G54

Amplifier LKP100	
Input	Electrode and ground
Process temperature	-20...140°C
Amb. temperature	-20...85°C
Power supply	18...36 Vdc; 10 mA max. (+ load)
Sensitivity	200 Ohm; 2 KOhm, 20KOhm (wiring)
Switching function	Selectable output polarity
Damping	0.5 sec. (fixed)
Output	Max. 50 mA, short circuit protected
Monitor	LED
Dimensions	ø44 x 21 mm

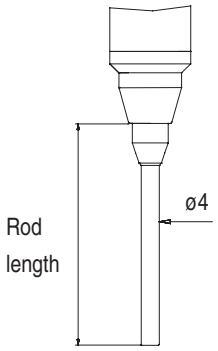
EMC data	
Immunity	EN 61000-6-2
Emission	EN 50081-1

Dimensional Drawings

[mm]



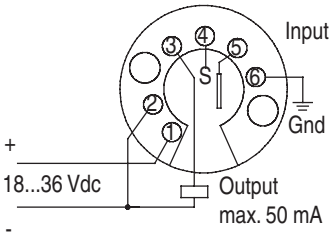
Housing + stub sensor

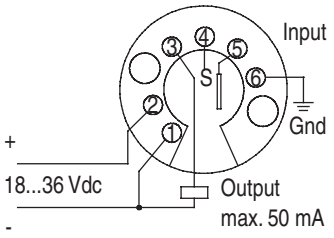


Rod sensor

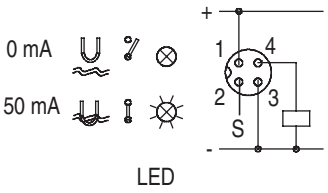
Electrical Installation

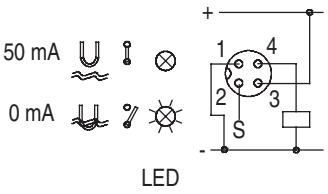
Amplifier LKP100





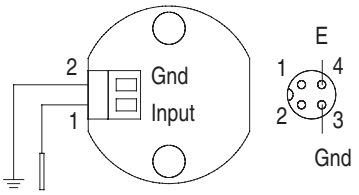
M12 Plug

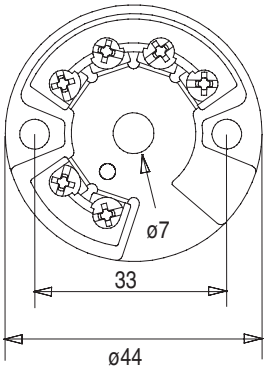




1: Brown
2: White
3: Blue
4: Black

Connection terminal M12 Plug





Sensibility	Connection	Typical application
20 KOhm	Terminal S connected to + (plus)	Water
2 KOhm	Terminal S not connected	Beer, juice, youghurt
200 Ohm	Terminal S connected to - (minus)	Acid, Alkalis

Note: Terminal S is for local or remote setting of the sensibility.

Ordering Details - LSK x2x

		LSK x2x (xxx) x
Type (Excl. welding part or adapter)	**4´ digit**	
Stub (Do not specify rod length)		0
Uncoated - 1 rod		1
Coated (PTFE) - 1 rod		2
Amplifier	**6´ digit**	
Without amplifier		0
With built-in amplifier LKP100 (50 mA output)		1
Rod Length (cm)	**7´...9´ digit**	
20		020
50		050
85		085
100		100
200		200
As customers specification (max. 200 cm)		xxx
Gland	**10´ digit**	
Cable gland, M16		1
Plug, M12		2

3.1.b material certificate, type number **5509-227**