LSK x2x Conductive Level Sensor

Wetted parts in acid-proof, stainless steel and PEEK

Compact, food compatible, hygienic design

3A approved, FDA and EHEDG compliant

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)

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 a resistance output by itself. A level control module e.g. LKP 100 or DNGA 230100 must be installed to provide a relay output.

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.

Baumer

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
Process temperature	-20...140°C
Amb. temperature	-20...85°C
Protection class	IP67
Media pressure	Max. 16 bar
Vibrations	IEC 68-2-6, GL test2
Powder Coating	PTFE, Accofal 3G54
Approval	3A
Adapters	Refer to “Accessories” data sheet

Amplifier LKP100

Input	Electrode and ground
Amb. temperature	-20...60°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)
Relay output	Max. load 50 mA, short circuit protected
Monitor	LED
Dimensions	ø44 x 21 mm

EMC data

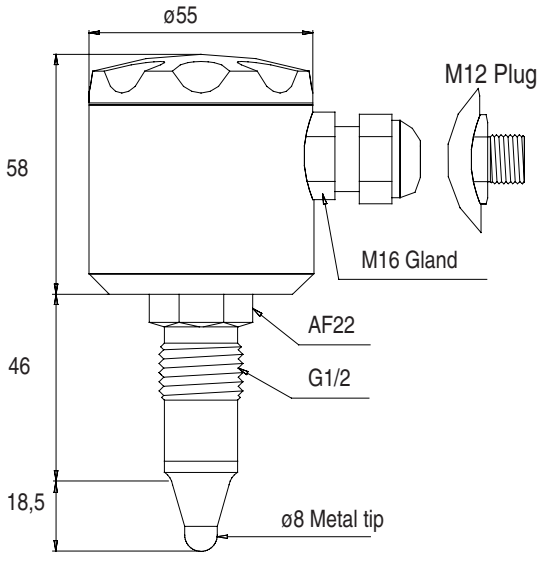
Immunity	EN 61326
Emission	EN 61326

Disposal of product and packing

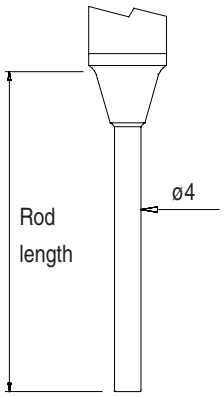
According to national laws or by returning to Baumer

Dimensional Drawings

[mm]



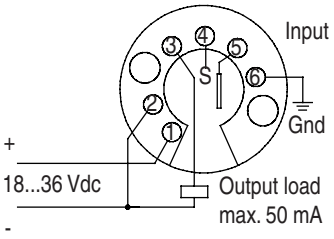
Housing + stub sensor

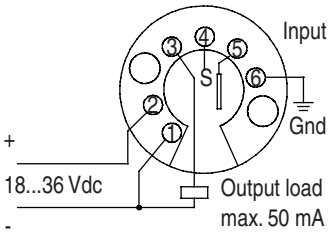


Rod sensor

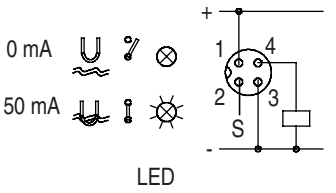
Electrical Installation

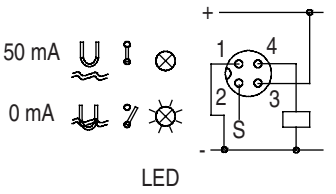
Amplifier LKP100





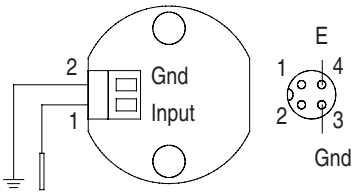
M12 Plug

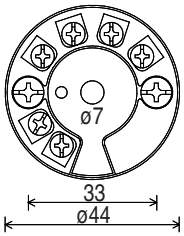




1: Brown
2: White
3: Blue
4: Black

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)	**Approval**	**4´ digit**	
Stub (Do not specify rod length)			0
Uncoated - 1 rod			1
Coated (PTFE) - 1 rod			2
Stub (Do not specify rod length)	3A		3
Uncoated - 1 rod	3A		4
Coated (PTFE) - 1 rod	3A		5
Amplifier		**6´ digit**	
Without amplifier			0
With built-in LKP100			1
Rod Length (cm)		**7´...9´ digit**	
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**

3A Approval

The LSK32x, LSK42x and LSK52x are approved by 3A providing it is mounted in a 3A approved counter part and installed according to the guidelines given in the installation manual.
The 3A approved products fulfill the FDA demands and follow the EHEDG guidelines regarding design, materials and finishing.
Refer to the 3A marked counter parts in the data sheet “Accessories”.