

LSK x5x 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

Optional PTFE coating

Optional Switching module DNGA 230100



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 hygienic installation is ensured by using a hygienic process weld-in sleeve e.g. PM 050. The rod electrodes can be shortened to any required length simply by cutting the length.

The LSK is well suitable for CIP and SIP processes.

The LSK provides no current output by itself.

Thus an evaluation module such as DNGA 230 100 is needed to provide an output signal.

For a non-conductive tank a 2 rod sensor is needed - one sensor being the reference (ground) terminal. In this application an integrated LKP100 output module with a 50 mA output is relevant.

Technical Data - LSKx5x

Sensor

Principle	Resistance measurement
Process connection	G1 hygienic
2...4 electrodes	20...200 cm, see "Ordering Details"
Insulating material	PEEK

Electrical connection

Cable gland M16	Plast
Plug M12	Nickel-plated brass (For 2- or 3 rod models only)

Mechanical data

Process temperature	-20...140°C
Amb. temperature	-20...85°C
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
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

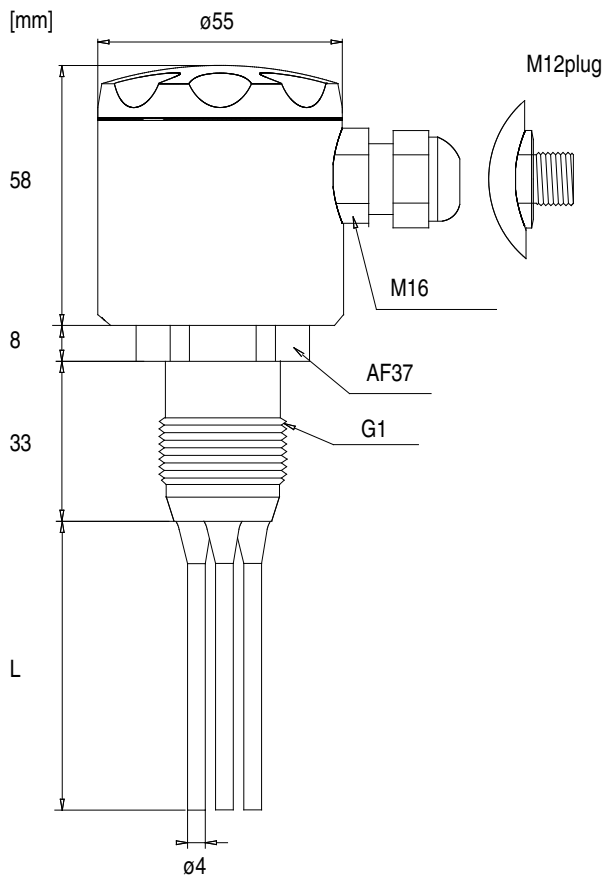
EMC data

Immunity	EN 61326
Emission	EN 61326

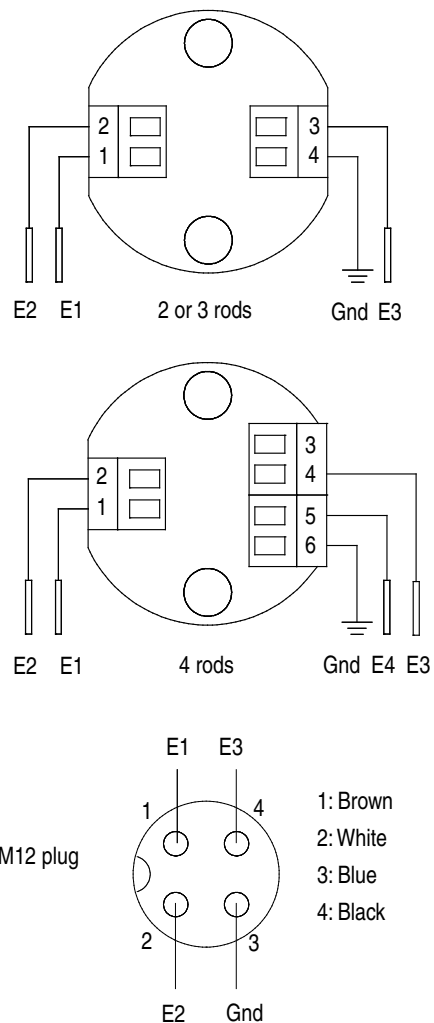
Disposal of product and packing

According to national laws or by returning to Baumer

Dimensional Drawings - LSKx5x



Electrical Installation



Ordering Details - LSK x5x

Type	Approval	4' digit	LSK x5x xxx xxx (xxx xxx) x			
Uncoated - 2, 3 or 4 rods			1			
Coated (PTFE) - 2, 3 or 4 rods			2			
Uncoated - 2, 3 or 4 rods	3A		3			
Coated (PTFE) - 2, 3 or 4 rods	3A		4			
Amplifier		6' digit				
Without amplifier			0			
With built-in amplifier LKP100, Note {1}			1			
Rod # 1 (cm) Specification is mandatory		7'...9' digit				
As customers specification (max. 200cm)			xxx			
Rod # 2 (cm) Specification is mandatory		10'...12' digit				
As customers specification (max. 200cm)				xxx		
Rod # 3 (cm) Specify if relevant		(13'...15' digit)				
As customers specification (max. 200cm)					xxx	
Rod # 4 (cm) Specify if relevant		(16'...18 digit)				
As customers specification (max. 200cm)						xxx
Gland		19' digit				
Cable gland, M16						1
Plug, M12 (2- or 3 rod models only)						2

Note

{1} Only available for a 2-rod sensor mounted in a non-conducting tank, where one rod is used for ground potential.

Accessories

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

Double level control module **DNGA 230100** (separate data sheet)

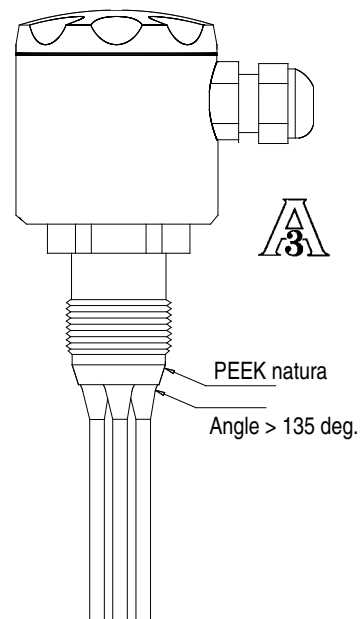
Refer to the "Accessories" data sheet for a full range of welding parts, adapters, etc.

3A Approval

The LSK 35x and LSK 45x 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".



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