



Conductive Level Switch



measuring
•
monitoring
•
analysing

LNK



- p_{max} : 10 bar; t_{max} : 100 °C
150 °C for CIP process
- 1 to 4 electrode stems,
any lengths up to 1500 mm
- Process connections:
G 1/2, G 1
installation meets hygiene
standards through
EHEDG-certified
installation system LZE
- Materials approved for
handling of foodstuffs
- Optional head mounted
transmitter
- Optional:
E-CTFE coating



(When using
LZE-hygienic
installation system)



Weld-in sleeve LZE



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Description

The conductive KOBOLD level probes LNK together with the transducer for head mounting or the external evaluating electronic are used for level monitoring. This method is based on the evaluation of the electrical conductivity of the medium. In combination with the KOBOLD LZE or LZE-R weldin sleeves, the probe provides a measuring point that has no dead space and meets hygiene standards (EHEDG approval certificate). This level switch is therefore ideally suited for CIP/ SIP cleaning.

The level switch is available with 1 or 2-4 electrodes, also available with E-CTFE coating. This allows foaming media to be detected reliably.

The output signal from the probes with head mounted transmitter can be connected directly to a PLC for evaluation. This means lower installation costs, minimum wiring requirements and a high degree of noise immunity.

The device is available with an optional M12x1 plug connector.

Applications

- Level monitoring in all conductive media

Technical Details

Measuring principle: conductive
 Process temperature: 0... 100 °C, 150 °C for CIP process
 Ambient temperature: 0... 70 °C
 Operating pressure: max. 10 bar

Material

- Head, thread supports: stainless steel 1.4404
- Insulating section: PEEK
- Electrode stem: stainless steel 1.4404
- Stem coating: E-CTFE, coating 0.3 mm
- Electrode length: 4 - 1500 mm
- Process connection: G 1/2 with 1 electrode stem
G 1 bei 2-4 electrode stems
- Connection: cable gland connection M16x1.5
optional M12x1 plug
- Protection: IP 67
- Min. conductivity: 10 µS/cm
- Weight: approx. 0.6 kg

Switch electronics

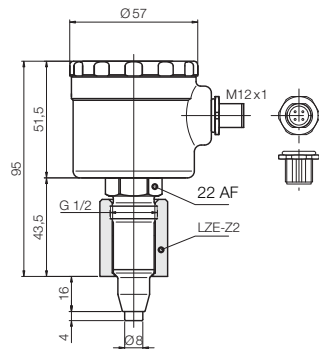
For 1- or 2-stem probe: internal level module for one switch point, option NPK/NPS (see LNR)

Power supply: 15... 36 V_{DC} , 15 mA
 Electrode voltage: approx. 2 V_{AC} / 600 Hz
 Sensitivity (adjustable): 4 steps 0,1/1/10/100 kΩ
 Function: full /empty report (determined via the polarity of the supply voltage)
 Output: PNP transistor output (open collector), U_{off} = +Vs - 1 V max. 50 mA, short-circuit-proof
 Switch delay (fixed): 1 s
 Weight: approx. 40 g

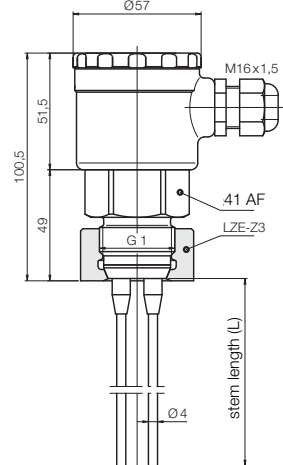
For 1- up to 4-stem probe: external electrode relay NE104 and NE304 (see data sheet in brochure N1/N2)

Dimensions

1-stem probe



Multi stem probe



Order Details (Example: LNK-1 2 0 A A A A 00K)

Model	Design (Process connection)	Electrode material	Electrode coating	Length 1. stem	Length 2. stem	Length 3. stem	Length 4. stem	Evaluation/ electronic connection
LNK-	1 = 1 electrode (G 1/2)	2 = stainless steel	0 = without coating E = E-CTFE coating	A = 4 mm stump	A = 4 mm stump	A = 4 mm stump	A = 4 mm stump	00K = without electronics, cable connection M16x1,5 00S = without electronics, M12x1 plug only for 1- or 2-stem probe: NPK = switching electronics; PNP switch output; thread. cable connection NPS = switching electronics; PNP switch output, M12x1 plug
	2 = 2 electrodes (G 1)			B = 100 mm	B = 100 mm	B = 100 mm	B = 100 mm	
	3 = 3 electrodes (G 1)			C = 250 mm	C = 250 mm	C = 250 mm	C = 250 mm	
	4 = 4 electrodes (G 1)			D = 500 mm	D = 500 mm	D = 500 mm	D = 500 mm	
				E = 750 mm	E = 750 mm	E = 750 mm	E = 750 mm	
				F = 1000 mm	F = 1000 mm	F = 1000 mm	F = 1000 mm	
				G = 1500 mm	G = 1500 mm	G = 1500 mm	G = 1500 mm	
				G = 1500 mm	0 = no other stem	0 = no other stem	0 = no other stem	

EHEDG certification of the connection system in combination with weld-in sleeve LZE.

External switch electronic: Electrode relay NE-104 and NE-304.