



## Conductive Level Limit Switches for conductive liquids



measuring  
•  
monitoring  
•  
analysing

NES



- $p_{\max}$ : 30 bar;  $t_{\max}$ : 150 °C
- Connection: G 1/2, G 1 1/2
- Electrode material:  
stainless steel,  
Hastelloy®, titanium
- Coating material:  
polyolefine, PTFE

N



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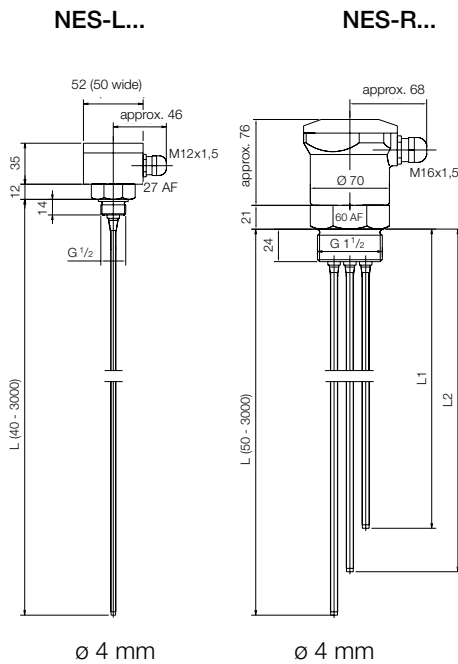
**Description**

KOBOLD limit switches of model NES are used for level monitoring and pump control of conductive liquids. The design without any moving parts allows service with critical media with, for example, solid content, negligible density or high viscosity. The instruments operate on the conductive principle. A low a.c. voltage is applied between the conductive wall of the tank or the earth electrode (longest electrode) and a switching point electrode. If the conductive medium touches the electrodes, a negligible alternating current flows across the electrodes and the conductive medium to the electrode relay. The relay amplifies the alternating current and operates an relay or a pump controller. An electrode relay of model NE-104 is required per switch point for signalling. For min./max. control two switching point electrodes must be connected to the relay. Relay NE-304 operates as two single relays (NE-104).

**Technical Details**

Housing: polyamide or aluminium  
 Connections: polypropylene, PTFE or stainless steel 1.4571  
 G 1/2 (single electrode)  
 G 1 1/2 (2-6 fold electrode)  
 Electrodes: stainless steel 1.4571, Hastelloy® or Titanium  
 Max. length of electrodes: 3000 mm  
 Electrode coating: polyolefine, complete coating  
 PTFE complete or partial coating  
 No. of electrodes: 1...6  
 Max. temperature: 90°C (polyolefine coating)  
 150°C (PTFE coating)  
 Max. pressure: 6 bar (PTFE connection)  
 15 bar (polypropylene connection)  
 30 bar (stainless steel connection)  
 Min. conductivity: 20 µS/cm  
 Protection: IP 65

**Dimensions**



**Electrode relay**

For technical details please refer data sheet NE

**Order Details for Electrode Relay**

Description of electrode relay	Supply		
	Order no. 24 V <sub>AC</sub>	Order no. 230 V <sub>AC</sub>	Order no. 110 V <sub>AC</sub>
1 limit signal or 1 min./max. control	NE-1042	NE-1040	NE-1041
2 limit signals or 2 min./max. controllers	NE-3042	NE-3040	NE-3041



**Order Details (Example: NES-R E A P 1)**

Model	Description	Housing	Electrode material	Electrode coating	Screwed fitting	Number of electrodes*
NES-	Conductive level limit switches	R = polyamide L = aluminium	E = stainless steel	A = polyolefine complete coating	E = stainless steel P = polypropylene	1 = 1 electrode 2 = 2 electrodes
			H = Hastelloy® C T = titanium E = stainless steel	T = PTFE partial coating (300 mm) V = PTFE-complete coating	E = stainless steel F = PTFE	3 = 3 electrodes 4 = 4 electrodes 5 = 5 electrodes 6 = 6 electrodes

\* Please specify the length of electrodes in the clear text