

# Electrode Relays for Conductive Limit Switches



measuring • monitoring • analysing





- For use with conductive electrodes NES, NEW, NEH and LNK
- Limit signal
- Min./Max. controller
- Power supply: 230 V<sub>AC</sub>, 110 V<sub>AC</sub>, 24 V<sub>AC</sub>



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### Description

KOBOLD electrode relays of model NE- are used with conductive level switches NES, NEH, NEW and LNK for level monitoring and control of conductive liquids.

An electrode relay NE-104 is required for single point signalling. It posses additionally a bi-stable interval relay which lock and is therefore suitable for pump control.

With relay NE-304 and a level conductive switch with two signal and one ground electrodes, two level limits could be detected.

The relay outputs could be configured as a Min./Max. control or as a single limit switch.

The relay NE-204 is used together with the conductive level limit switch NEW for water contaminating liquids. This system complies with the requirements of the §19 WHG. It should be used for tanks and vessels for storage of non-flammable, water contaminating liquids.

### **Technical Details NE-104, NE-304** Power supply:

Power input:

Floating voltage: Short-circuit-current: Sensitivity: Response time: Output:

Switching capacity: Housing: Protection:

Ambient temperature: Dimensions: Installation: Signalling:

## NE-204 according to § 19 WHG

Power supply: 24, 230 V<sub>AC</sub> ± 15%; 50-60 Hz Power input: approx. 2 VA Floating voltage: approx. 20 V<sub>AC</sub> Short-circuit-current: approx. 4 mA Sensitivity: approx. 50 kΩ Response time: approx. 1 s Output: 1 floating changeover contact max. 250 V<sub>AC</sub>, 5 A, 600 VA Switching capacity: Housing: Macrolon Protection: housing: IP 40 terminals: IP 20 Ambient temperature: -20°C...+60°C Dimensions: 75 x 55 x 110 mm Installation: DIN rail mount or wall mount Signalling: LED green: auxiliary power on LED red: open-circuit LED yellow: monitoring state Monitoring the mains supply: by dropping out the switch contact Monitoring electrode: lead by dropping out the switch

230, 110, 24  $V_{AC} \pm 15\%$ ;

NE-104: approx. 2 VA

NE-304: approx. 4 VA

50-60 Hz

approx. 10 V<sub>AC</sub>

approx. 0.5 mA

approx. 1 s

NE-104:

NE-304:

Makrolon®

housing: IP 40

terminals: IP 20

-20°C...+60°C

75 x 55 x 110 mm

adjustable 0-50 kΩ

1 floating changeover contact

2 floating changeover contacts

max. 250  $V_{\rm AC}$ , 5 A, 600 VA

DIN rail mount or wall mount

LED red: monitoring state

contact, red LED lights up



### Dimensions [mm]



### Order Details (Example: NE-104 0)

Model	Description	Number of outputs	Power supply
NE-	Electrode relay	<ul> <li>104 = 1 limit signal or 1 Min./Max. controller</li> <li>304 = 2 limit signals or 2 Min./Max. controller</li> <li>204 = 1 limit signal acc. to § 19 WHG</li> </ul>	$0 = 230 V_{AC}$ $1 = 110 V_{AC}^{*}$ $2 = 24 V_{AC}$

\* Not with NE-204