- **Relay for conductive level limit value detection**
- **WE-housing**
- **The relays have different response ranges**
- **Application as electrode and contact protector relay in Ex-area zone 1 and 2**
- **Minimum - maximum - control possible**
- **Open / closed circuit principle switchable with jumper**

Electrode relay, Ex-version

HR-103121
Sensitivity 25 kΩ, fixed

HR-103125
Sensitivity 2 ... 30 kΩ

HR-103126
Sensitivity 6 ... 150 kΩ

Function principle

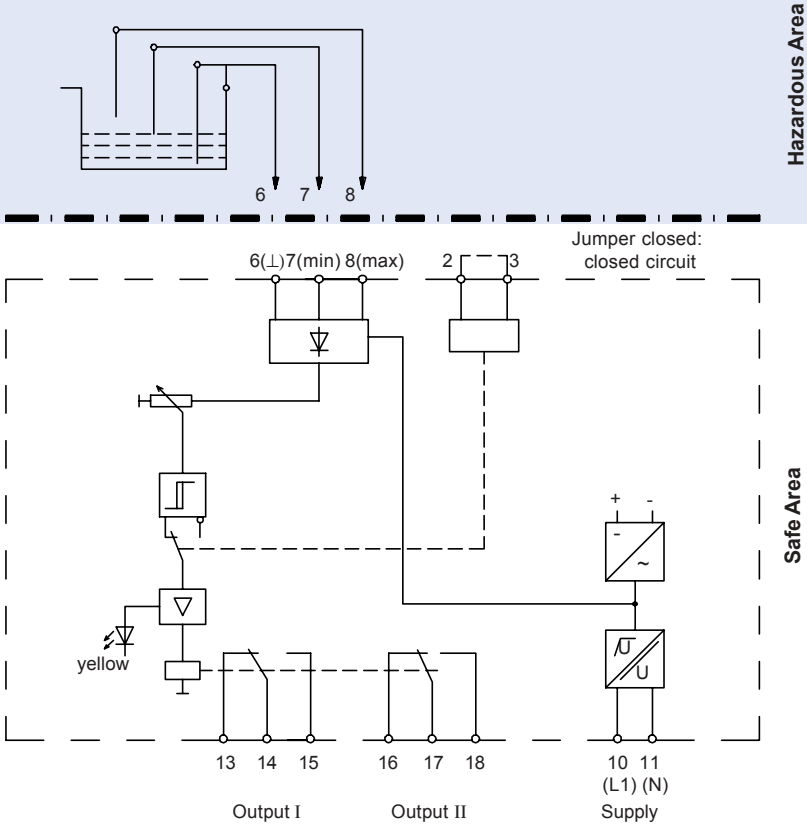
The relays provide the A.C. measuring voltage for the electrodes and react with a small alternating current after the electrodes get in contact with the medium. The switching amplifiers are voltage and temperature stabilized and guarantee a defined switching characteristics. An electronic holding contact allows a minimum-maximum-control. Since the conductance of the media may vary, the relay response sensitivity is adjustable.

Open circuit / closed circuit current principle

switchable with an insulated jumper at the terminals 2-3;
Jumper 2-3= closed circuit:
After turning on the supply the relay rises directly and falls back, if a current flows between terminals 6 and 8.

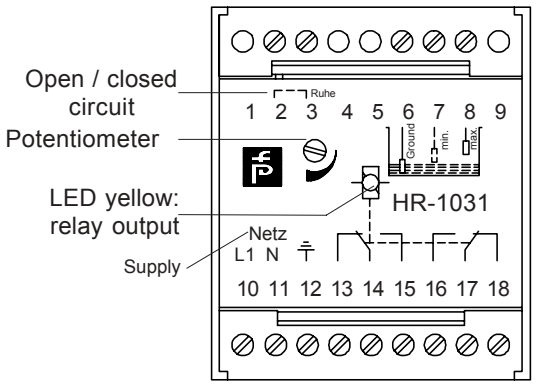
Application in Ex-areas zone 1 and 2

The relay fulfills the requirements of VDE 0551 and 0171 Part 7 due to galvanically insulated power supply, input, and output relay. Therefore may the control current be used in Ex-areas (zone 1 and 2). The relay is to be mounted in the non-ex-area.
For passive switching elements - even those without approval - may the relay be used as contact protector relay. An additional approval is not required.



Please specifiy the supply voltage (only a.c.) when ordering.

Front



Date of issue 14.05.98

Technical data	
Approvals / Certifications	PTB Nr. Ex-78 / 2027
Response sensitivity HR-103121 HR-103125 HR-103126	 25 kΩ fixed 2 ... 30 kΩ adjustable via potentiometer 6 ... 150 kΩ adjustable via potentiometer
Power supply Nominal voltage Power consumption	Terminals 10 (L1), 11 (N), 12 (⏚) AC 230 V , AC 24 V or AC 115 V, (48 ... 62 Hz) ≈ 1.5 VA
Input / measuring circuit **Ignition protection class, category** max. voltage max. current No-load voltage Short-circuit current max. external capacitance max. external inductance	Terminals 6(Ground), 7(min), 8(max) **[EEx ib] II C** AC 2 V 0.25 mA < 11.6 V < 3.6 mA 1000 nF 3000 mH
Output Contact rating	2 changeovers, terminals 13, 14, 15 and 16, 17, 18 AC: 250 V / 4 A / cos φ ≥ 0.7; DC: 60 V / 0.5 A
Mechanics Design Mounting	 Standard housing of Polysterene, W / H / D 60 / 70 / 110 mm 2 bores according to DIN 43 604, standard mounting rail EN 50022
Protection class acc. to EN 60 529	Housing IP 40, terminals IP 20
Environmental conditions Temperature	 -20 °C ... +50 °C (253 K ... 323 K)

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