

Level switch HRH-2

Niveauschalter HRH-2

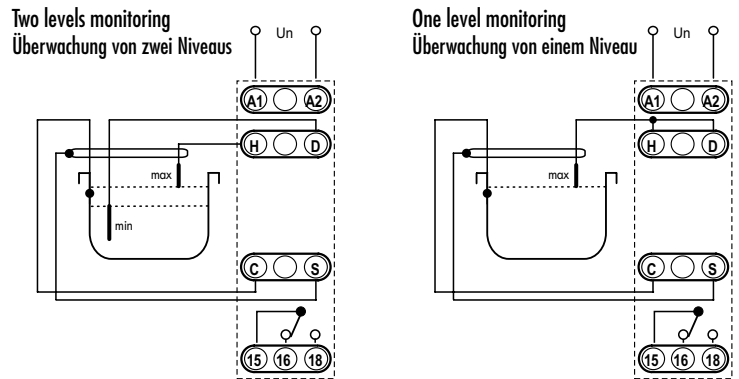


- ▶ Options:
 - single switch with single-state monitoring
 - single switch with double-state monitoring
 - ▶ Selection function of:
 - pump up (filling)
 - pump down (emptying)
 - ▶ Adjustable hysteresis (5 - 100 kW)
 - ▶ Adjustable time delay of output (1 - 10 s)
 - ▶ Supply AC/DC 230 V or AC/DC 24 V galvanically separated
 - ▶ Output contact: 1x changeover 16 A / 250 V AC1
 - ▶ Frequency 50 Hz avoid liquid polarization and oxidation of measuring probes
 - ▶ 1-MODULE, DIN rail mounting
- ▶ Konfigurationen:
 - Single Niveauschalter mit Überwachung von einem Niveau
 - Single Niveauschalter mit Überwachung von 2 Niveaus
 - ▶ wählbare Funktionen:
 - nachpumpen (füllung)
 - abpumpen (entleerung)
 - ▶ einstellbare Hysterese (5 - 100 kW)
 - ▶ einstellbare Zeitverzögerung (1 - 10 s)
 - ▶ galvanisch getrennte Versorgung AC/DC 230 V oder AC/DC 24 V
 - ▶ Ausgangskontakt: 1x Wechsler 16 A/250V AC1
 - ▶ Meßfrequenz 50 Hz verhindert die Flüssigkeitspolarisation und Oxidation der Fühler
 - ▶ Modul-Ausführung (1-MODUL), Befestigung auf DIN Schiene

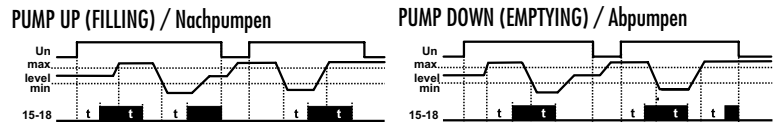
Technical parameters Technische Daten

Function:	Funktion:	HRH-2
Supply terminals:	Versorgungsklemmen:	A1 - A2
Supply voltage:	Versorgungsspannung:	AC/DC 230 V or AC/DC 24 V, galvanically separated
Consumption:	Leistungsaufnahme:	2.5 VA
Supply voltage tolerance:	Toleranz:	-15 %; +10 %
Measuring circuit:	Messkreis:	
Hysteresis (input resistance):	Hysterese:	5 kW- 100 kW
Voltage on electrode:	Elektrodenspannung:	max. AC 5 V
Current in probes:	Sondenstrom:	AC <0.5 mA
Time reaction:	Zeitverzögerung:	max. 400 ms
Max. probe capacity:	Max. Kabelkapazität:	3 nF
Time delay:	Zeitverzögerung:	adjustable, 1 - 10 s
Accuracy	Genauigkeit:	
Setting accuracy (mech):	Einstellgenauigkeit:	+/- 5%
Output	Ausgang:	
Number of contacts:	Anzahl der Wechsler:	1x changeover, (AgSnO ₂)
Rated current:	Nennstrom:	16 A / AC1
Breaking capacity:	Schaltleistung:	4000 VA / AC1, 384 W / DC
Inrush current:	Hächststrom:	30 A / <3 s
Switching voltage:	Schaltspannung:	250 V AC1 / 24 V DC
Min. breaking capacity DC:	Min. Schaltleistung DC:	500 mW
Mechanical life:	Mechanische Lebensdauer:	3x10 ⁷
Electrical life (AC1):	Elektrische Lebensdauer (AC1):	0.7x10 ⁵
Other information	Andere Informationen:	
Operating temperature:	Umgebungstemperatur:	-20 .. +55 °C
Storage temperature:	Lagerstemperatur:	-30 .. +70 °C
Electrical strength:	Elektrische Festigkeit:	2.5 kV (input - output)
Operating position:	Arbeitsstellung:	any / wahlfrei
Mounting:	Befestigung/DIN Schiene:	DIN rail EN 60715
Protection:	Schutzart/frontseitig:	IP 40
Overvoltage category:	Spannungsbegrenzungsklasse:	III.
Pollution degree:	Verschmutzungsgrad:	2
Max. cable size:	Anschlußquerschnitt:	max. 2.5 mm ² / with cavern 1.5 mm ²
Dimensions:	Abmessung:	90 x 52 x 64 mm
Weight:	Gewicht:	76 g
Standards:	Normen:	EN 60255-6, EN 61010-1
Measuring sensors:	Meßsonden:	see page 61

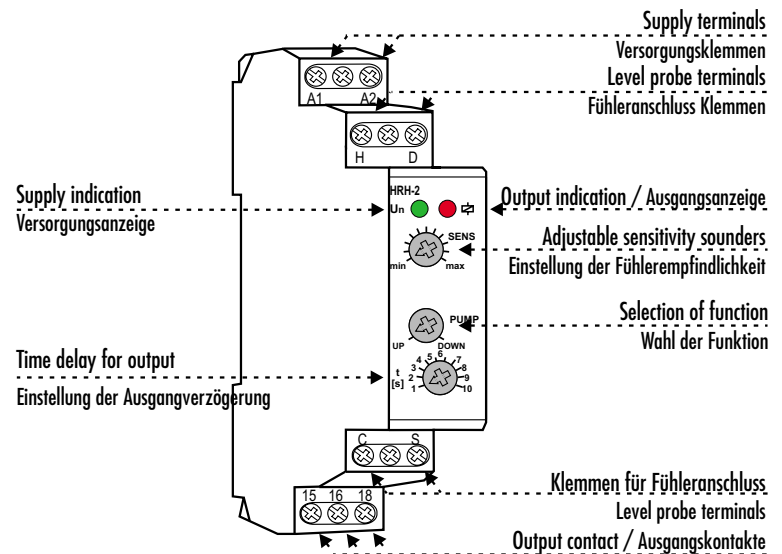
Connection / Schaltung



Functions / Funktionen



Description / Beschreibung



Function description / Funktionsbeschreibung

The HRH-2 is conductive liquid level control relay. The HRH-2 can be used with two probes if the chassis of the holding tank is metal, or non conductive tanks is required a third probe. There are used three probes for measuring: H - high level, D - down level, C - common probe. C-probe is also connectable with protective conductor of supply system (PE). The HRH-2 is selectable for pump up or pump down (filling or emptying). It is possible to set device sensitivity according to liquid conduction (appropriate to liquid resistance in range 5kOhms to 100kOhms). When requested controlling of only one level inputs H+D, must be connected and link to sole sensor. When the HRH-2 is set for pump up (filling) on connection of the auxiliary supply and the level is between the min and max probes the output relay will be de-energised. When the level falls below the min probe the relay output will energise after the set time delay. When the HRH-2 is set for pump down (emptying) on connection of the auxiliary supply and the level is between the min and max probes the output relay will be de-energised. For unwanted switching of output contacts due to level swirling is possible to adjust output delay of 1 - 10 sec. There is recommended screened cable on probes when requested higher immunity against industry interference.