

# Temperature °Controls Pty Ltd

ACN: 075 298 592

ABN: 966 501 901 83

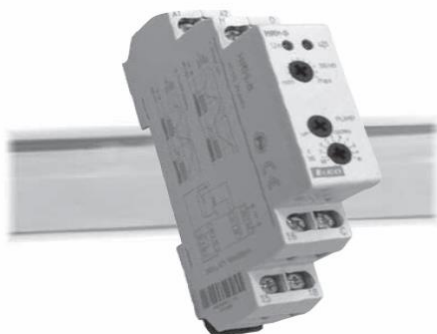


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**1218**

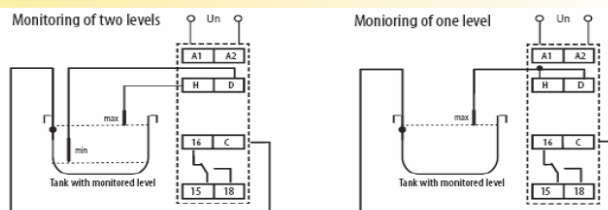
## LEVEL SWITCH CONDUCTIVITY



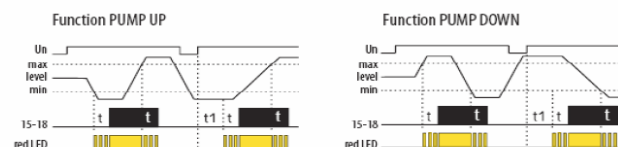
- ⚡ relay is designated for monitoring levels in wells, reservoirs, pools, tanks....
- ⚡ In one device you can choose the following configurations:
  - one-level switch of conductive liquids ( by connecting H and D)
  - two-level switch of conductive liquids
- ⚡ one-state device monitors one level, two-state device monitors two levels (switches on one level and switches off on another level)
- ⚡ choice of function PUMP UP, PUMP DOWN
- ⚡ adjustable time delay on the output (0.5 - 10s)
- ⚡ sensitivity adjustable by a potentiometer (5-100kΩ)
- ⚡ measuring frequency 10Hz prevents polarization of liquid and raising oxidation of measuring probes
- ⚡ galvanically separated supply voltage UNI 24.. 240 VAC/DC
- ⚡ output contact 1xchangeover 8A/250V AC1
- ⚡ in 1-module type, mounting onto a DIN rail

Technical parameters	HRH-5
Functions:	2
Supply terminals:	A1 - A2
Supply voltage:	24.. 240 V AC/ DC
Input:	max. 2 VA
Tolerance of supply voltage:	-15 %; +10 %
<b>Measuring circuit</b>	
Sensitivity ( input resistance):	adjustable in range 5 kΩ - 100 kΩ
Voltage n electrodes:	max. AC 3.5 V
Current in probes:	AC <0.1 mA
Time response:	max. 400 ms
Max. capacity of probe cable:	800 nF (sensitivity 5kΩ), 100 nF (sensitivity 100 kΩ)
Time delay (t):	adjustable, 0.5 - 10 sec
Time delay after switching on (t1):	1.5 sec
<b>Accuracy</b>	
Accuracy in setting (mechanical):	± 5 %
<b>Output</b>	
Number of contacts:	1x changeover (AgNi)
Number of contacts:	8 A / AC1
Switched output:	2500 VA, 240 W
Switched voltage:	250 V AC1 / 24 V DC
Min. switched output DC:	500 mW
Mechanical life (AC1):	1x10 <sup>7</sup>
Electrical life:	1x10 <sup>6</sup>
<b>Other data</b>	
Operational temperature:	-20.. +55 °C
Storing temperature:	-30.. +70 °C
Electrical strenght:	3.75 kV (supply - sensors)
Operational position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP 40 from front panel
Overvoltage category:	III.
Pollution degree:	2
Profile of connecting wires (mm <sup>2</sup> ):	max. 1x 4, max. 2x2.5/ with sleeve max. 1x2.5, 2x1.5
Dimensions:	90 x 17.6 x 64 mm, for details see pg.157-159
Weight:	72 g
Applicable standards:	EN 60255-6, EN 61010-1
Recommended measuring probes:	see pg. 106

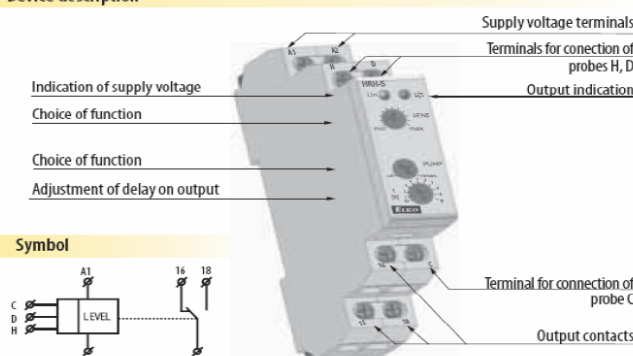
### Connection



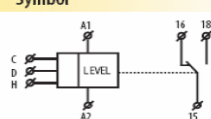
### Function



### Device description



### Symbol



### Description of function

Relay is designated for monitoring of levels of conductive liquids with possibility of functions: PUMP UP or PUMP DOWN. To prevent polarization and liquid electrolysis of liquid, and undesirable oxidation of measuring probes, alternating current is used. For measuring use three measuring probes: H- upper level, D- lower level, C - common probe. In case you use a tank made of a conductive material, you can use it as probe C. In case you require monitoring of one level only, it is necessary to connect inputs H and D and connect them to one probe - in this case sensitivity is lowered by half (2.5... 50kΩ). Probe C can be connected with a protective wire of supply system (PE). To prevent undesirable switching out output contacts by various influences (sediment on probes, humidity...) it is possible to set sensitivity of the device according to conductivity of monitored liquid (corresponding to "resistance" of liquid) range 5 up to 100...kΩ. To reduce influences of undesirable switching of output contacts by liquid gurgles in tanks, it is possible to set delay of output reaction 0,5 - 10s.

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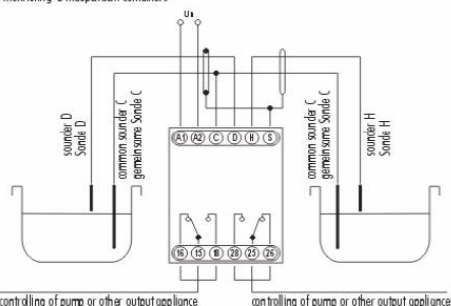
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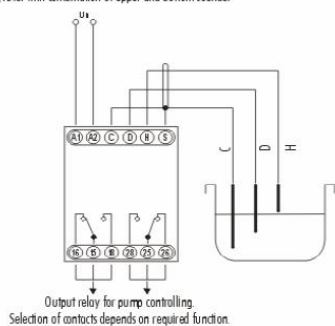
## CONDUCTIVITY LEVEL ONE VESSEL 2 OUTPUT RELAY CONTROL OR 2 VESSEL WITH INDIVIDUAL RELAY OUTPUT



HRH-1 monitoring 2 independent containers

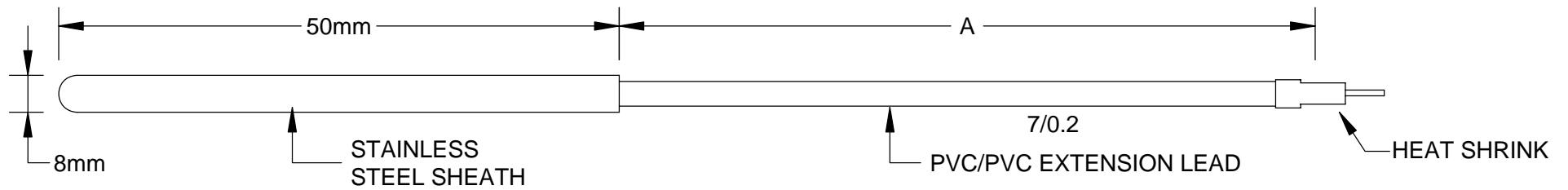


HRH-1 monitoring level with combination of upper and bottom sounder



**Email for additional information and pricing**

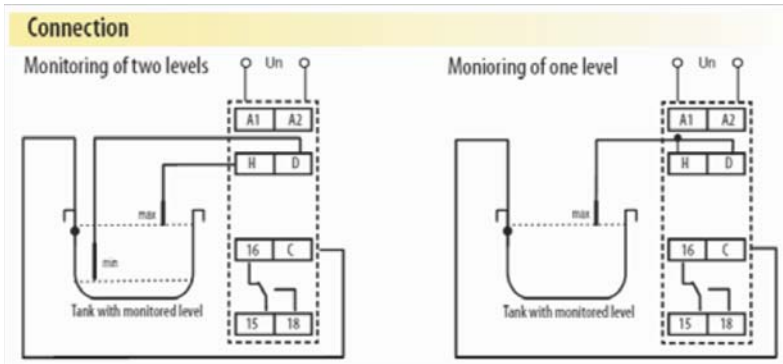
Function:	4
Supply terminals:	A1 - A2
Supply voltage:	AC 230 V or AC/DC 24 V, galvanically separated
Consumption:	max. 4.5 VA
<b>Measuring circuit</b>	
Hysteresis:	adjustable 5 kΩ - 100 kΩ
Voltage on electrode:	AC 5 V
Current via sounders:	AC <1 mA
Time reaction:	max. 400 ms
Max. cable capacity:	4 nF
Length of supply wire on probes:	max. 100 m
Time delay tD:	adjustable 0.5 - 10 s
Time delay tH:	adjustable 0.5 - 10 s
<b>Accuracy</b>	
Setting accuracy (mech):	+/- 5%
<b>Output</b>	
Number of contacts:	2x changeover, AgNi
Rated current:	16 A / AC1
Breaking capacity:	4000 VA / AC1, 384 W / DC
Inrush current:	30 A / <3 s
Switching voltage:	250 V AC1 / 24 V DC
Min. breaking capacity DC:	500 mW
Mechanical life:	3x10 <sup>7</sup>
Electrical life:	0.7x10 <sup>5</sup>
Operating temperature:	-20 .. +55 °C
Storage temperature:	-30 .. +70 °C
Electrical strength:	2.5 kV (input - output)
Operating position:	any / wahlfrei
Mounting:	DIN rail EN 60715
Protection:	IP 40
Overvoltage category:	III.
Pollution degree:	2
Max. cable size:	2.5 mm <sup>2</sup>
Dimensions:	90 x 52 x 65 mm
Weight:	250 g
Standards:	EN 60255-6, EN 61010-1



**DIN RAIL MOUNT LEVEL SWITCH  
MODEL TCHR5 (1218)**

Two - level monitoring

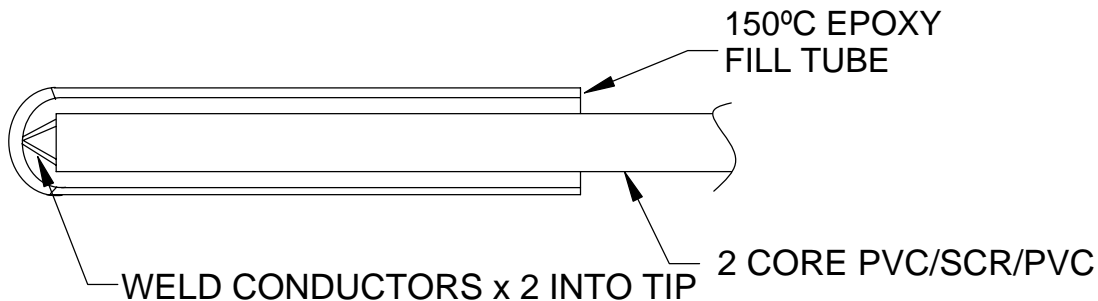
One - level monitoring



**CONDUCTIVITY PROBE TC02 STYLE  
SINGLE/DUAL LEVEL CONTROL**

- High level probe – Length .....
- Low level probe – Length.....
- Earth electrode – Length.....

NOTE: Earth electrode required for non metal tank only.



<b>TEMPERATURE CONTROLS PTY LTD</b>		Certificate No: QEC 14412 AS/NZS 9001:2000
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	TITLE <b>TCHR5 + TCHR1 (1218)</b>	
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