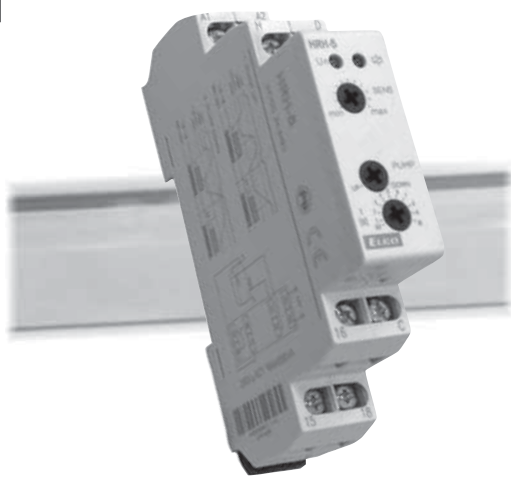
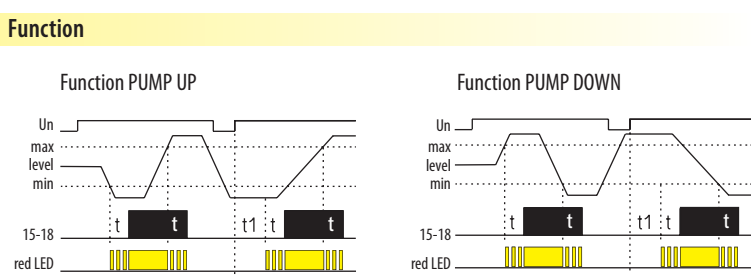
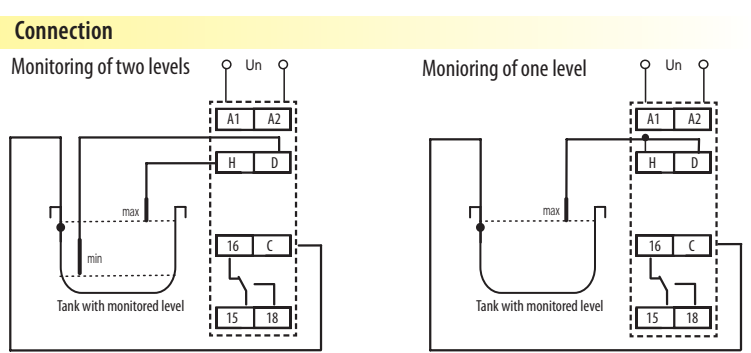


# Level switch HRH-5

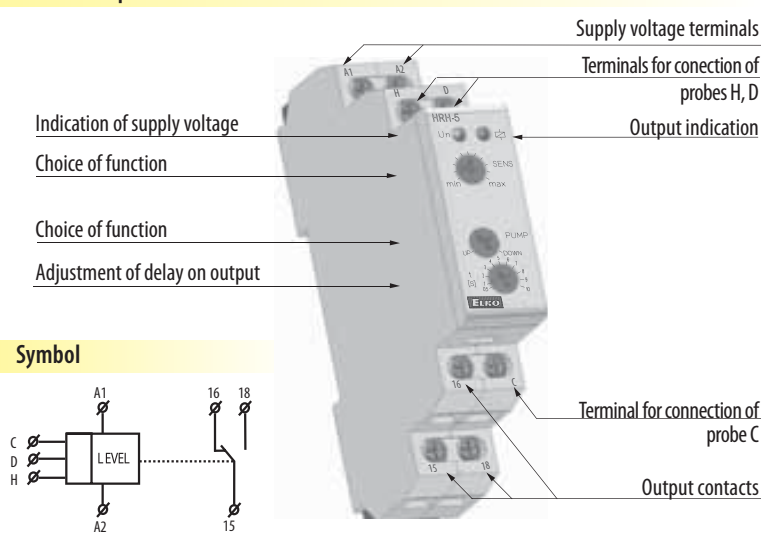


- ! relay is designated for monitoring levels in wells, reservoirs, pools, tanks...
- ! In one device you can choose the following configurations:
  - one-level switch of conductive liquids ( by connecting H and D)
  - two-level switch of conductive liquids
- ! one-state device monitors one level, two-state 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

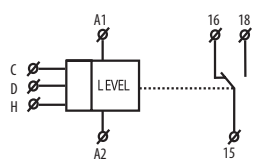
Technical parameters	HRH-5
Functions:	2
Supply terminals:	A1 - A2
Supply voltage:	24.. 240 V AC/ DC
Input:	max. 2 VA
Tolerance of supply voltage:	-15 %; +10 %
<b>Measuring circuit</b>	
Sensitivity ( input resistance):	adjustable in range 5 kΩ - 100 kΩ
Voltage n electrodes:	max. AC 3.5 V
Current in probes:	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 strength:	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



## 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.