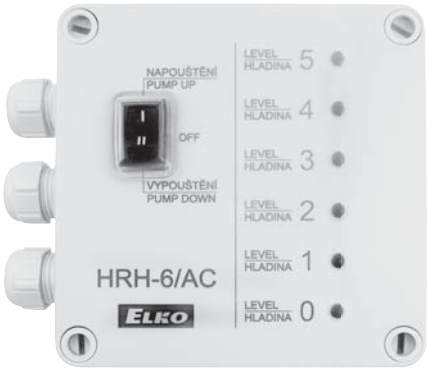


EAN code

HRH-6 /AC	8595188136990
HRH-6 /DC	8595188137409
HRH-6S	8595188137416

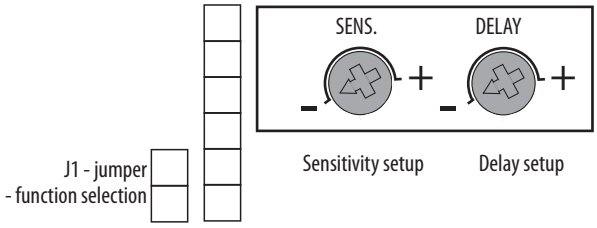
- Function 1 monitors minimal and maximal level depth, for example in fire engine cars, tanks etc.
- Function 2 monitors level depth in water collectors, basins, pools etc.
- Selection of particular function is made by jumper on the front panel
- Level depth is indicated on the panel of device by LED
- Device monitors 5 levels by using six probes (one probe is common)
- Common probe can be replaced by a metal (conductive) tank
- Level indicationby six LED's on the front panel of the device
- It is possible to connect another indication module (e.g. in fire-engine cabin)
- Adjustable sensitivity according to liquid conductvity
- Adjustable time delay - elimination of level movement, e.g. while a tank is being filled up
- Measuring frequency 10 Hz to prevent polarization of liquid
- Supply voltage 12.... 24 V DC (to be used in fire-engines) or galvanically separated 230 VAC for general use
- Contact relay 10A for signalization of full/empty tank (according to a chosen function)
- Choice of functions PUMP UP/OFF/PUMP DOWN by a switch located on the front panel of the device
- Protection degree IP65

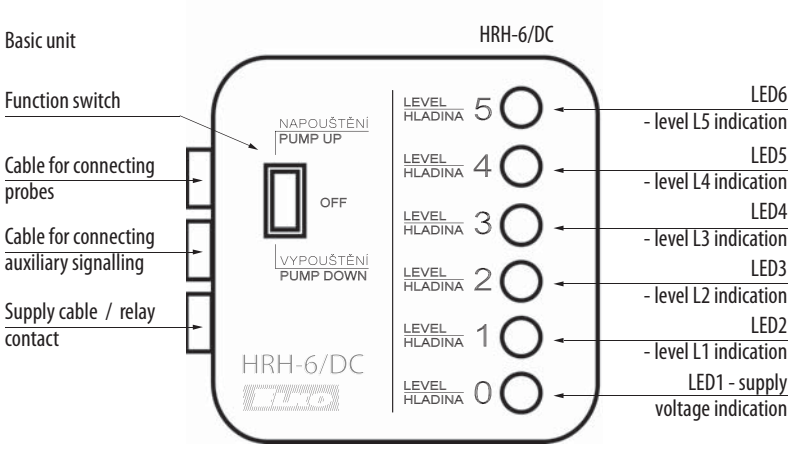
Technical parameters	HRH-6 / DC	HRH-6 / AC
Function:	2	
Voltage range:	12..24V DC	230V AC/50-60Hz
Burden:	max. 1.8 W	max.3.8 VA
Supply tolerance:	+/- 20%	-20 %; +10 %
Measuring circuit		
Sensitivity adjustable in the range*:	min. 10...20kΩ max. 100...150kΩ	
Voltage on probes:	max. 3V AC	
Probe cable maximum capacity:	500nF (for min. sensitivity), 50nF (for maximum sensitivity)	
Time delay:	adjustable 1...10s	
Output	6xLED (1x red, 1x yellow, 4x green)	
Number of contacts:	1x NO-SPST (AgNi/ Silver Alloy)	
Current rating:	10A / AC1	
Switching voltage:	2500 VA / AC1, 200 W / DC	
Peak current:	16 A / < 3s	
Switching voltage:	250V AC1 / 24V DC	
Min. switching capacity DC:	500 mW	
Mechanical life (AC1):	$3x10^7$	
Electrical life:	$0.7x10^5$	
Other information		
Operating temperature:	-20 °C to +55 °C (-4 °F to 131 °F)	
Storage temperature:	-30 °C to +70 °C (-22 °F to 158 °F)	
El. strength (supply – probes):	x	3.75 kV
Operating position:	any	
Protection degree:	IP 65	
Overvoltage category:	x	III.
Pollution degree:	2	
Dimensions:	110 x 135 x 72 mm (4.3˝ x 5.3˝ x 2.8˝)	
Weight:	384 g (13.55 oz.)	284 g (13.55 oz.)
Standards:	EN 60255-6, EN 61010-1	
Recommended measuring probe:	see pg. 90-91	

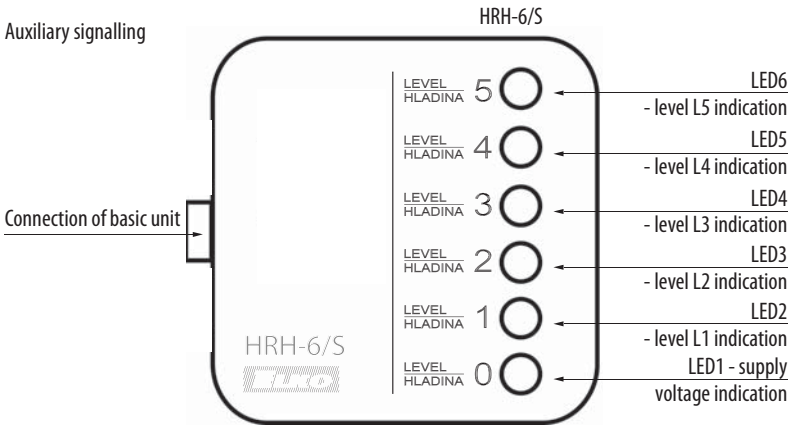
* Note: sensitivity is higher at both ends of a range of values.

Description of function:

Connection of HRH-6 in a block

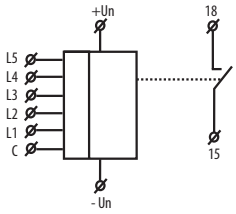




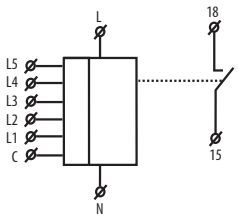


Connection

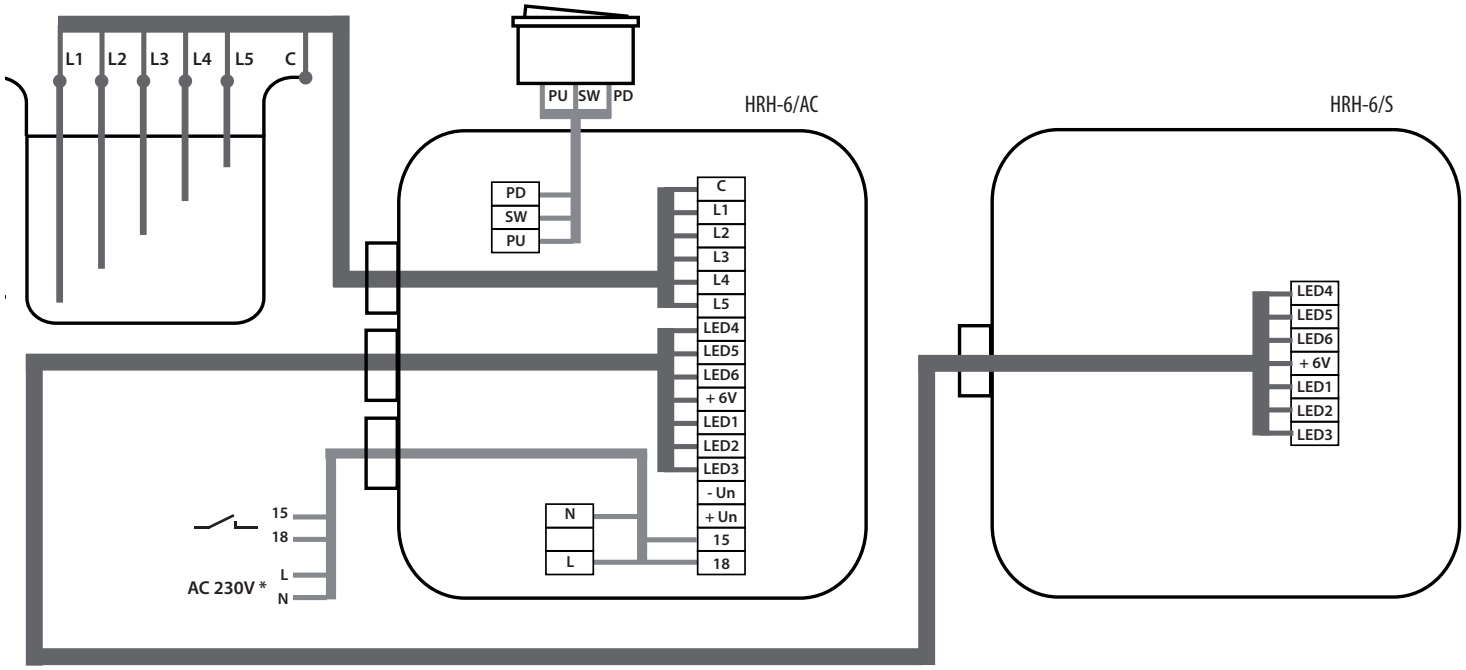
HRH-6/DC



HRH-6/AC

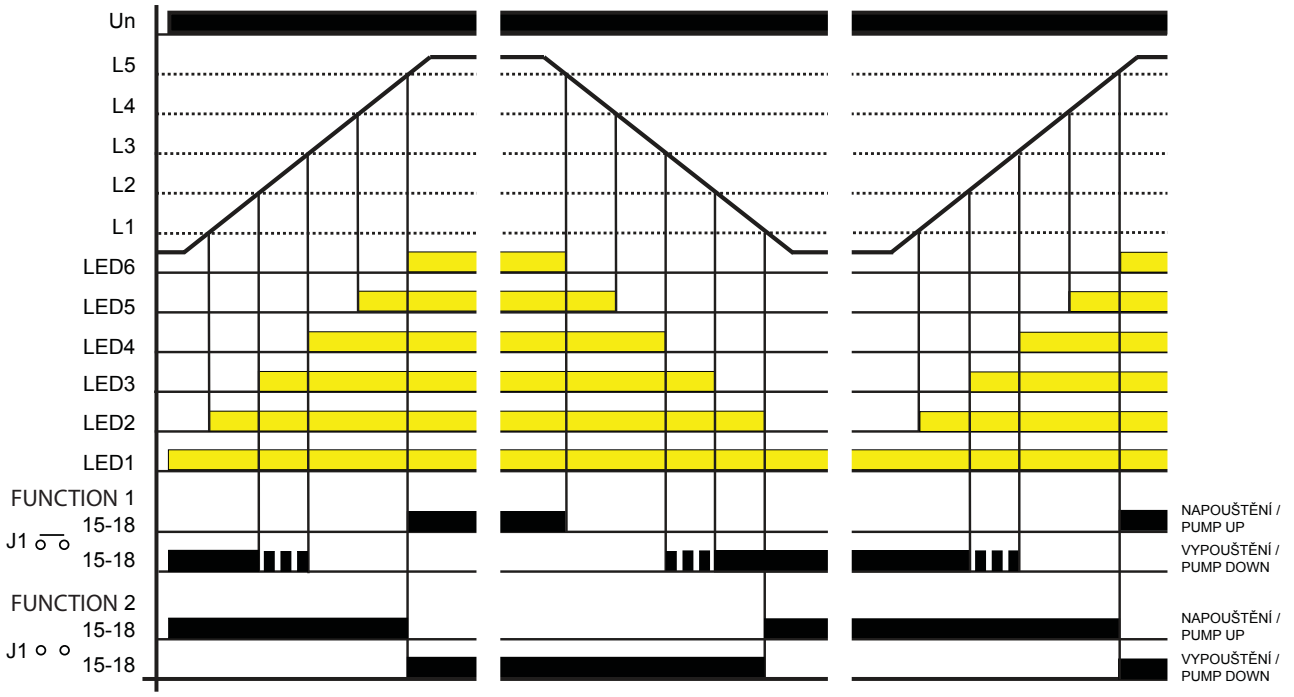


HRH-6 block connecting



* In case of HRH-6/DC, incoming supply is connected on terminals +Un and - Un.

Functions



This device monitors level of a conuctive liquid in a tank by using six single probes or one 6-fold probe. In case you use a tank made of a conductive material, it is possible to use it as a common probe C. This common probe is connected to a pole of supply (for fire-engines it means its body) in case of supply voltage 12...24VDC.
In case of supply voltage 230VAC, the circuits are galvanically separated from the main.
The device is controlled by a three-position switch PUMP UP/OFF/ PUMP DOWN. After switching into a position PUMP UP or PUMP DOWN, red LED1 shines and then also LED2...LED6 according to liquid level. Output relay has 2 selectable functions.
Funtion setting is done by a jumper on basic board of HRH-6.
Function 1: (for use in fire-engines) - jumper is applied. In case of function PUMP UP and level reaching L5, the relay controlling e.g. acustic signalization, permanently closes and indicated full tank. In case of PUMP DOWN function and level dropunder level L3, relay priodically switches and under L2 it switches permanently (indicates almost empty tank).
Function 2: (for keeping liquid level) - jumper is not applied. In case of PUMP UP, sensor is switched until liquid reaches level L5. Then relay opens and switches again in case the lliguid level falls under level L1. In case of PUMP DOWN - relay is switched until liquid falls under level L1. Then relay opens and switches again on level L5.
To eliminate LED flashing while level gurgle it is possible to delay reaction of probes (set delay 1..10s). According to conductivity of liquid it is possible to set sensitivity of probes (corresponding to "resistance" of liquid).