



- Level sets are used to monitor levels in wells, reservoirs, tanks...
- Advantage is the possibility of setting PUMP UP and PUMP DOWN and also delayed switching (e.g. in case of level fluctuations).
- The possibility of connection to 1 or 3-phase pump (depending on the type of set).
- Easy to install without complicated wiring - ready for installation.
- There are Level sets placed in switchboard with IP65 protection (protected against dust and against water jets)
 - HRH-VS: level switch HRH-5 with installation contactor VS425-40 (25A contact)
 - HRH-MS-1A: level switch HRH-5 with motor starter MS18 0.63-1A
 - HRH-MS-1.6A: level switch HRH-5 with motor starter MS18 1-1.6A
 - HRH-MS-VS-2.5A: level switch HRH-5 with installation contactor VS425-40 (25A contact) and with motor starter MS18 1.6-2.5 A
 - HRH-MS-VS-4A: level switch HRH-5 with installation contactor VS425-40 (25A contact) and with motor starter MS18 2.5-4 A
 - HRH-MS-VS-6.3A: level switch HRH-5 with installation contactor VS425-40 (25A contact) and with motor starter MS18 4-6.3 A

EAN code
 HRH-VS: 8595188150699
 HRH-MS-1A: 8595188150873
 HRH-MS-1.6A: 8595188150705
 HRH-MS-VS-2.5A: 8595188150880
 HRH-MS-VS-4A: 8595188150712
 HRH-MS-VS-6.3A: 8595188150835

Technical parameters	HRH-VS	HRH-MS-1A	HRH-MS-1.6A	HRH-MS-VS-2.5A	HRH-MS-VS-4A	HRH-MS-VS-6.3A
Function:	2					
Voltage range:	230 / 400 V AC 50 - 60 Hz					
Input (max.):	4.6 VA / 1.5 W	2 VA / 1.5 W	2 VA / 1.5 W	4.6 VA / 2 W	4.6 VA / 2 W	4.6 VA / 2 W
Tolerance of voltage range:	-15 %; +10 %					
Measuring circuit						
Sensitivity (input impedance):	adjustable in range 5 kΩ - 100 kΩ					
Voltage on the 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 5 kΩ), 100 nF (sensitivity 100 kΩ)					
Time delay (t):	adjustable, 0.5 - 10 sec					
Time delay after switching on (t1):	1.5 sec					
Accuracy:						
Setting accuracy (mech.):	± 5 %					
Output						
Number of contacts:	4	1	1	4	4	4
Rated thermal current:	25 A	8 A	8 A	25 A	25 A	25 A
Load on AC3:	4 kW	1 A	1.6 A	2.5 A	4 A	6.3 A
Switching voltage:	230 V / 400 V	230 V	230 V	400 V AC	400 V AC	400 V AC
Electric life (A3):	0.5 x 10 ⁶	1 x 10 ⁵	0.5 x 10 ⁶	0.5 x 10 ⁶	0.5 x 10 ⁶	0.5 x 10 ⁶
Current setting range MS18:	-	0.63 - 1 A	1 - 1.6 A	1.6 - 2.5 A	2.5 - 4 A	4 - 6.3 A
Other information						
Operating temperature:	-20 °C to 55 °C (-4 °F to 131 °F)					
Storage temperature:	-25 °C to 70 °C (-13 °F to 158 °F)					
Electrical strength:	3.75 kV (supply - probe)					
Operating position:	any					
Protection degree:	IP65 set					
Pollution degree:	2					
Dimension:	201 x 128 x 120 mm (7.9 x 5 x 4.7")			201 x 202 x 120 mm (7.9 x 7.9 x 4.7")		
Weight:	862 g (30.4 oz.)	872 g (30.7oz.)	872 g (30.7oz.)	1358 g (47.9 oz.)	1358 g (47.9 oz.)	1358 g (47.9 oz.)
Related standards:	EN 60255-6, EN 61010-1					
Recommended measuring probes:	see pg. 100					

Functions

PUMP DOWN function (DOWN) used for protection against Idle Running or against overflow and flooding areas.

Detecting the maximum level results in activation of adjusted delayed response. After that output contact immediately turns on single or 3-phase pump until it reaches the minimum level. Then the pump turns off.

In case that a reservoir is made of a conductive material e.g. metal tanks, there can be a difference in connection of HRH-5 level sets - it is not necessary to put inside a common probe „C“ and connect with SHR-2 probe, but thanks to conductivity of vessel we can connect probe C to the reservoir body.

The length of wire cable (between the level switch and probe) can be up to 50 m. We don't recommend placing near the power lines, because the sensitivity of equipment can be affected and thus the entire functionality.

Recommended accessories:

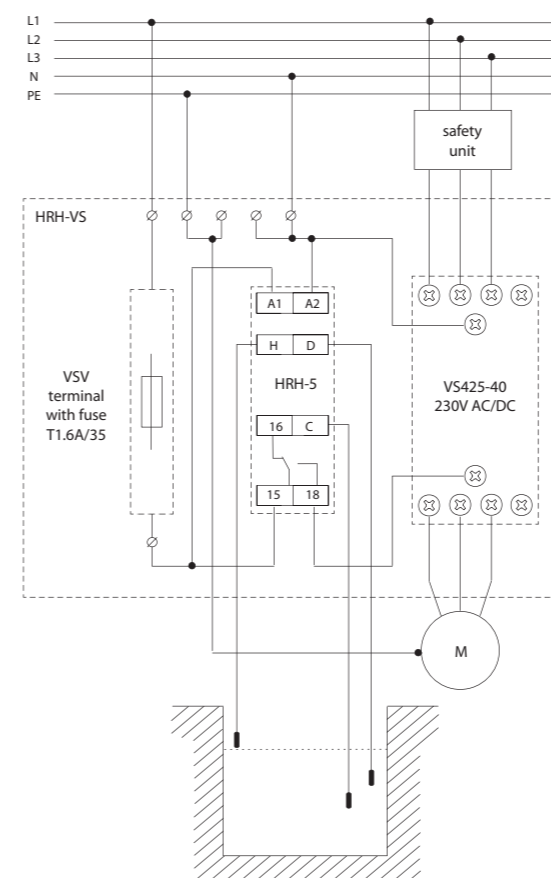
- 3 wire cable D03VV-F 3x0,75/3,2

- 1 wire cable D05V-K 0,75/3,2

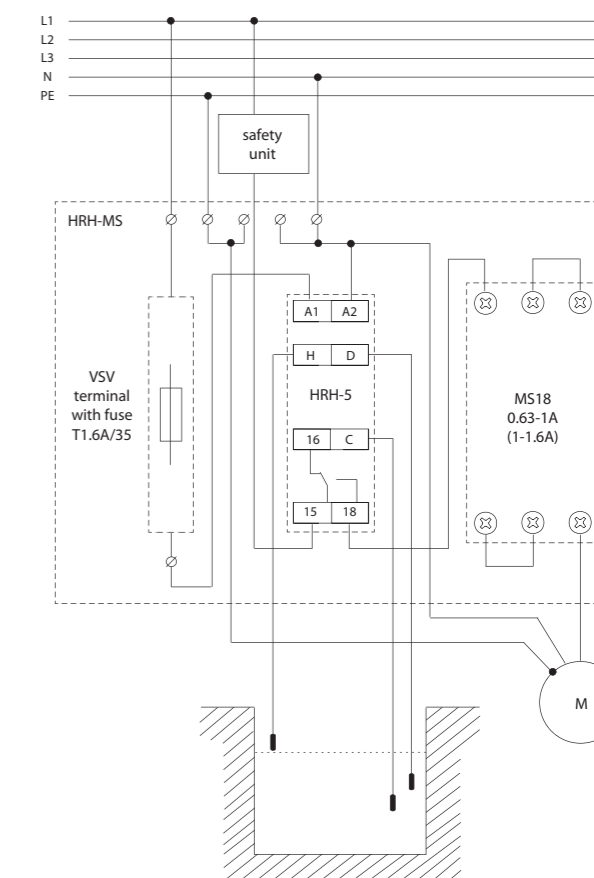
- SHR-2 probe - probe covered by PVC (protected) - used in moderately polluted waters, drilling, wells. Assembly - hanging in the well.

Connection

Level set HRH-VS



Level set HRH-MS-1A (HRH-MS-1.6A)



Level set HRH-MS-VS-2.5A (HRH-MS-VS-4A, HRH-MS-VS-6.3A)

