• Relay designed for monitoring DC and AC currents in three ranges.
• The relay controls the current size in two independent levels (Imax, Imin).
• Setting the monitored level (Imax in % of range).
• Setting the monitored level (in % of range - for PRI-42 - function WINDOW).
• Adjustable function "MEMORY".
• Function of second relay (independent / in parallel).
• Adjustable delay for eliminating short-term outages and surges for every level independently.
• Galvanically separated power supply from monitoring inputs.
• Output contact: 2x changeover 16 A / 250 V AC for each current level.
• 3 MODULE, DIN rail mounting.

### Technical parameters PRI-41, PRI-42

**Supply circuit**
- Supply terminals:
  - AC 100 V / 230 V, 400 V or AC / DC 24 V
- Voltage range: AC 50 - 60 Hz
- Burden max.:
  - 2.5 W / 5 VA (AC 100 V, AC 230 V, AC 400 V),
  - 4.5 W / 2.5 VA (DC 24 V)
- Operating range: -15 % to +10 %

**Measuring circuit**
- EAN code PRI-42/400V:
  - 8595188140522
- EAN code PRI-42/230V:
  - 8595188140539
- EAN code PRI-42/110V:
  - 8595188147484
- EAN code PRI-41/24V:
  - 8595188140492
- EAN code PRI-41/110V:
  - 8595188140508
- EAN code PRI-41/380V:
  - 8595188140515

**Standards:**
- 800 nF (sensitivity 5kΩ), adjustable, 0.5 -10 sec
- 2000 VA / AC1, 240 W / DC
- 100 nF (sensitivity 100 kΩ)
- 250 V AC1 / 24 V DC

**Weight:**
- 72 g (2.5 oz.)

**Dimensions:**
- 90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)

**Accuracy**
- Measuring accuracy: ± 5 %
- Repeat accuracy: ± 1 %
- Temperature dependency: < ± 0.1 % / °C
- Limit value accuracy: ± 5 %
- Hygiene (fault to OR): selectable 5 % to 10 % from range

**Output contacts**
- Number of contacts: 1x changeover / SPDT (AgNi/ Silver Alloy)
- Current rating: 8 A / AC
- Breaking capacity:
  - max. 2x 2.5, max. 1x 4 / (AC 50 - 60 Hz)
- Input:
  - max. AC 3.5 V
- Voltage n electrodes:
  - 3 A
- Measuring frequency 10 Hz prevents polarization of liquid and raising oxidation of measuring probes.
- Sensitivity adjustable by a potentiometer (5 - 100 kΩ).
- Adjustable time delay on the output (0.5 - 10s).

**Other information**
- Operational temperature: -20 °C to 55 °C (-4 °F to 131 °F)
- Storing temperature: -30 °C to 70 °C (-22 °F to 158 °F)
- Electrical strength:
  - 5.75 kV / supply (volts)
- Protection degree:
  - IP40 from front panel / IP20 terminals
- Overvoltage category:
  - II
- Pollution degree:
  - 2
- Profile of connecting wires:
  - max. 2x 2.5, max. 1x 4 / (AC 50 - 60 Hz)
- Dimensions:
  - Dimensions: 90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)
- Weight:
  - 72 g (2.5 oz.)

**Recommended measuring probes:**
- EN 60225-3-1, EN 61010-1
- See pg. 95

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### Technical parameters HRH-5

**Functions:**
- 2

**Supply terminals**
- Voltage range: 24...240 V AC / DC (AC 50 - 60 Hz)
- Input: max. 2 VA

**Tolerance of voltage range:**
- -15 % to +10 %

**Measuring circuit**
- Sensitivity (input resistance):
  - adjustable in range 5 kΩ - 100 kΩ
- Voltage in 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 SCL), 100 nF (sensitivity 100 kΩ)
- Time delay (t): adjustable, 0.5 - 10 sec
- Time delay after switching on:
  - 1.5 sec

**Accuracy**
- Accuracy in setting (mech.):
  - ± 5 %

**Output**
- Number of contacts: 1x changeover / SPDT (AgNi/ Silver Alloy)
- Current rating: 8 A / AC

**Switching voltage**
- 2000 VA / AC1, 240 V / DC
- 250 V AC1 / 24 V DC

**Mechanical life (AC1):**
- 1x10^6

**Other information**
- Operational temperature:
  - -20 °C to 55 °C (-4 °F to 131 °F)
- Storing temperature:
  - -30 °C to 70 °C (-22 °F to 158 °F)
- Electrical strength:
  - 5.75 kV / supply (volts)
- Protection degree:
  - any
- Mounting:
  - DIN rail EN 60715
- Overvoltage category:
  - II
- Pollution degree:
  - 2
- Profile of connecting wires:
  - max. 2x 2.5, max. 1x 4 / (AC 50 - 60 Hz)
- Dimensions:
  - Dimensions: 90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)
- Weight:
  - 72 g (2.5 oz.)

**Recommended measuring probes:**
- EN 60225-3-1, EN 61010-1
- See pg. 95

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**HRH-5 - Level switch**

**Function PUMP UP**
- Function PUMP DOWN

- Relay is designed 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 two 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 (± 0.5...50 kΩ). 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 out contacts by liquid gange in tanks, it is possible to set delay of output reaction 0.5 - 10s.

**Connection**
- Monitoring of two levels
  - Monitoring of one level

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**PRI-41, PRI-42 - Current monitoring relay**

- Relay is designed for monitoring in wells, basins, reservoirs, 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 functions PUMP UP, PUMP DOWN.

- Adjustable time delay on the output (0.5 - 10s).
- Sensitivity adjustable by a potentiometer (5 - 100 kΩ).
- Measuring frequency 10 Hz prevents polarization of liquid and raising oxidation of measuring probes.
- Galvanically separated supply voltage UN 24...240 V AC/DC.
- Output contact 1x changeover/SPDT 8A/240V AC50.