



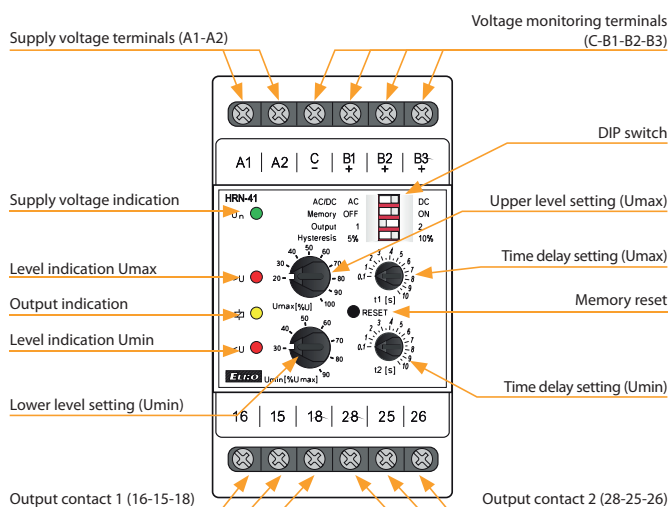
EAN code
 HRN-41/UNI: 8595188185295
 HRN-41/400V: 8595188140423
 HRN-42/UNI: 8595188185301

| Technical parameters | | HRN-41 | HRN-42 |
|--|------|---|-----------------------------------|
| Supply | | | |
| Supply terminals: | | A1-A2 | |
| Supply voltage: | UNI | AC/DC 24 – 240 V (AC 50-60 Hz) | |
| Consumption (max.): | | 3 VA/1 W | |
| Supply voltage: | 400V | AC 400 V (50-60 Hz) | |
| Consumption (max.): | | 5 VA/2.5 W | |
| Supply voltage tolerance: | | -15 %; +10 % | |
| Measuring | | | |
| Monitored terminals: | | C-B1 | C-B2 |
| Monitored ranges*: | | AC/DC 10 – 50 V (AC 50-60 Hz) | AC/DC 32 – 160 V (AC 50-60 Hz) |
| Input resistance: | | 212 kΩ | 676 kΩ |
| Max. permanent voltage: | | 100 V | 300 V |
| Peak overload (1 s): | | 250 V | 700 V |
| Time delay U _{max} (t1): | | adjustable, 0.1 – 10 s | |
| Time delay U _{min} (t2): | | adjustable, 0.1 – 10 s | |
| Accuracy | | | |
| Setting accuracy (mech.): | | 5 % | |
| Repeat accuracy: | | < 1 % | |
| Temperature dependance: | | < 0.1 %/°C (°F) | |
| Limit values tolerance: | | 5 % | |
| Hysteresis (fault to OK): | | selectable, 5 %/10 % from the upper range value | |
| Output | | | |
| Contact type: | | 2x changeover/SPDT (AgNi) | |
| Current rating: | | 16 A/AC1 | |
| Breaking capacity: | | 4000 VA/AC1, 384 W/DC1 | |
| Inrush current: | | 30 A/< 3 s | |
| Switching voltage: | | 250 V AC/24 V DC | |
| Power dissipation (max.): | | 2.4 W | |
| Mechanical life: | | 10.000.000 ops. | |
| Electrical life (AC1): | | 100.000 ops. | |
| Other information | | | |
| Operating temperature: | | -20 °C .. +55 °C (-4 .. 131 °F) | |
| Storage temperature: | | -30 °C .. +70 °C (-22 .. 158 °F) | |
| Dielectric strength: | | AC 4 kV | |
| supply – output | | AC 4 kV | |
| output 1 – output 2 | | AC 4 kV | |
| Operating position: | | any | |
| Mounting: | | DIN rail EN 60715 | |
| Protection degree: | | IP40 front panel / IP20 terminals | |
| Overvoltage category: | | III. | |
| Pollution degree: | | 2 | |
| Cross-wire section – solid/ stranded with ferrule (mm ²): | | max. 1x 2.5, 2x 1.5/ max. 1x 2.5 (AWG 14) | |
| Dimensions: | | 90 × 52 × 65 mm (3.5" × 2" × 2.6") | |
| Weight: | | UNI – 148 g (5.2 oz), 400 V – 249 g (8.8 oz) | |
| Standards: | | EN 60255-1, EN 60255-26, EN 60255-27 | |

* Only one input can be monitored at a time.

- Relay is used for monitoring AC or DC voltage in three ranges.
- Monitors level of voltage in two independent levels (U_{min}, U_{max}).
- Setting the monitored upper level (U_{max}) in % of range.
- Setting the monitored lower level (U_{min}):
in % of the set upper limit (HRN-41, function HYSTERESIS)
in % of range (HRN-42, function WINDOW)
- Selectable function of output contacts (independently/in parallel).
- Independent adjustable time delay of both levels
(eliminating short-term drops and spikes).
- Galvanically separated power supply from monitoring inputs.
- Output contact for each monitored voltage level.

Description

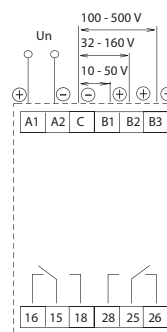


Description of DIP switch

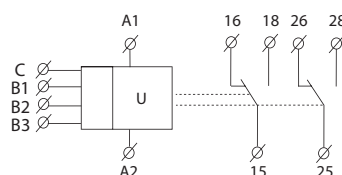
| | | | |
|---------------|--------------------------|-----|---------------------------|
| AC/DC AC | <input type="checkbox"/> | DC | Type of monitored voltage |
| Memory OFF | <input type="checkbox"/> | ON | Memory function |
| Output 1 | <input type="checkbox"/> | 2 | Output function setting |
| Hysteresis 5% | <input type="checkbox"/> | 10% | Hysteresis setting |

Output 1 = output contacts are switched in parallel
 Output 2 = output contacts are switched separately for each level

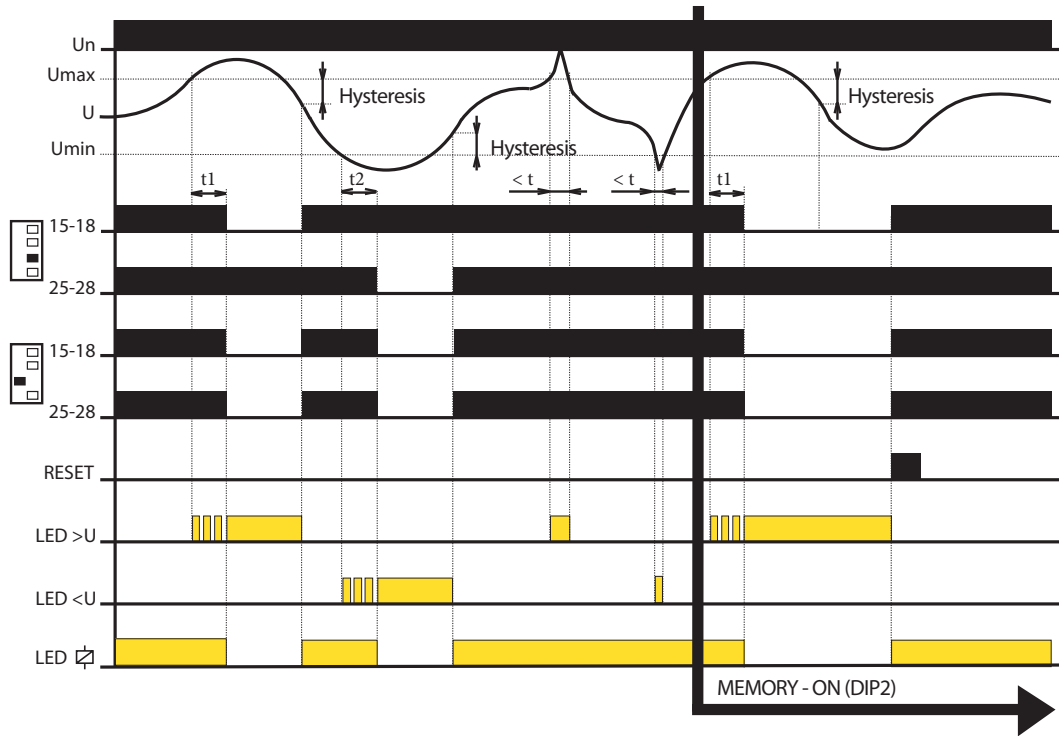
Connection



Symbol



Function



- If the value of the monitored voltage is in the zone between the set upper and lower levels, the OK state occurs, both output contacts are closed and the yellow LED illuminates. If the value of the monitored voltage is outside the set limits ($> U_{max}$ or $< U_{min}$), a fault state occurs.
- When moving to a fault state ($U > U_{max}$), time delay t_1 is running and red LED $>U$ simultaneously flashes. After the time t_1 elapses, the red LED $>U$ illuminates and the relevant output contact opens.
- When moving to a fault state ($U < U_{min}$), time delay t_2 is running and red LED $<U$ simultaneously flashes. After the time t_2 elapses, the red LED $<U$ illuminates and the relevant output contact opens.
- When moving from a fault state to the OK state, the relevant red LED immediately goes out, and the corresponding output contact closes.
- DIP Switch „Output“
 - Output 1 = output contacts are switched in parallel
 - Output 2 = output contacts are switched separately for each level