

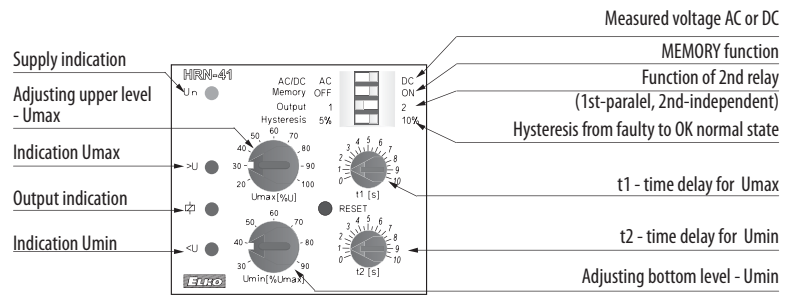
EAN code

HRN-41 /110V	8595188140430
HRN-41 /230V	8595188140409
HRN-41 /400V	8595188121521
HRN-41 /24V	8595188140416
HRN-42 /110V	8595188140478
HRN-42 /230V	8594030337653
HRN-42 /24V	8594030338070

Technical parameters	HRN-41	HRN-42	
Supply			
Supply terminals:	A1 - A2		
Voltage range:	AC 110 V, AC 230 V, AC 400 V or AC/DC 24 V (AC 50-60Hz)		
Burden:	max. 4.5 VA		
Supply voltage tolerance:	-15%; +10 %		
Measuring			
Ranges:	10 - 50 V (AC 50Hz)	32 - 160 V (AC 50Hz)	100 - 500 V (AC 50Hz)
Terminals:	C - B1	C - B2	C - B3
Input resistance:	110 kΩ	360 kΩ	1.1 MΩ
Max. permanent overload:	100 V	300 V	600 V
Peak overload <1ms:	250 V	700 V	1 kV
Time delay for Umax:	adjustable, 0 -10 s		
Time delay for Umin:	adjustable, 0 -10 s		
Accuracy			
Setting accuracy (mechanical):	5 %		
Repeat accuracy:	<1 %		
Dependance on temperature:	< 0.1 % / °C		
Tolerance of limit values:	5 %		
Hysteresis (from fault to normal):	selectable 5 % / 10 %		
Output			
Number of contacts:	2x changeover/ SPDT (AgNi / Silver Alloy)		
Current rating:	16 A / AC1		
Breaking capacity:	4000 VA / AC1, 384 W / DC		
Inrush current:	30 A / < 3 s		
Switching voltage:	250 V AC1 / 24 V DC		
Min. breaking capacity DC:	500 mW		
Output indication:	yellow LED		
Mechanical life:	3x10 ⁷		
Electrical life (AC1):	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)		
Electrical strength:	4 kV (supply - output)		
Operating position:	any		
Mounting:	DIN rail EN 60715		
Protection degree:	IP 40 from front panel / IP 20 terminals		
Overvoltage category:	III.		
Pollution degree:	2		
Max. cable size (mm ²):	solid wire max. 1x2.5 or 2x1.5/ with sleeve max. 1x1.5 (AWG 12)		
Dimensions:	90 x 52 x 65 mm (3.5" x 2" x 2.6")		
Weight:	239 g (8.4 oz.)		
Standards:	EN 60255-6, EN 61010-1		

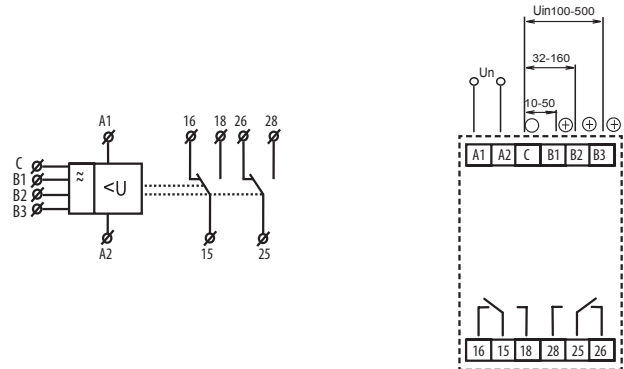
- Monitoring DC / AC 1-phase in 3 ranges
- Monitoring voltage with 2 independent levels (overvoltage / undervoltage)
- Two versions, HRN-41: Function "HYSTERESIS" a HRN-42: Function "WINDOW"
- "MEMORY" function - manual reset key on frontal panel
- function of second relay (independent/parallel)
- Adjustable delay for short peaks
- Galvanically separated supply voltage from measuring inputs
- Output contact: 1x changeover/SDPT 16 A / 250 V AC1 for all monitored levels
- 3-MODULE, DIN rail mounting

Description

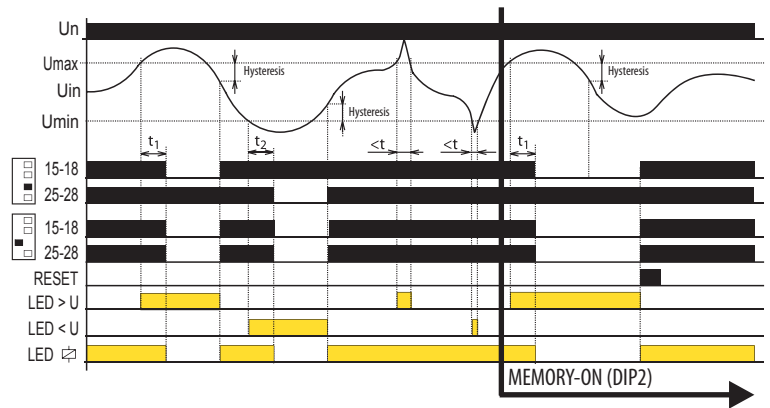


Symbol

Connection



Function



Relay is delivered in two versions – according to the way of setting and monitoring voltage levels. HRN-41 has function Hysteresis, which means that only upper level is set (Umax) and lower level (Umin) is set in % from upper level. Therefore lower level automatically changes when changing upper level.

HRN-42 has function "WINDOW", which means that upper level (Umax) and lower level (Umin) are set independently in % from rated monitored range. Both types have choice of function MEMORY, in case the relay gets into a faulty state it keeps output in this state until it is reset by button RESET. DIP switch No.3 can be used to choose if relays should switch individually for each level or in parallel in case any level of voltage is overrun. DIP switch No.4 serves to set hysteresis which applies when going from normal state to a faulty one. Relay has protection against polarity reversing for DC voltage or incorrectly chosen AC-DC voltage (this fault is indicated by flashing of both LEDs (LED <U a LED >U).