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Control with LCD display - Voltage - Current - HDU \ HDI voltage or current monitoring - HDI - H

Selling points of the range
➕ Displays the current value and the preset value on LCD
➕ Controls AC and DC signals (automatic detection)
➕ Selectable overload or underload mode
➕ Threshold and hysteresis can be adjusted separately
➕ Memory function in case of fault
➕ Delay on threshold crossing

Part number characteristics	84 871 309
Measurement ranges	0.1 to 10 A
Supply voltage	120 V AC
Measurement ranges	
Input resistance	
Maximum permanent current	E1-M : 2 A
	E2-M : 10 A
	E3-M : 14 A
Peak overload <1 s at 20 °C	
Max. line voltage	
Product available	**made to order**

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|	
Supply voltage	230, 120, 24 V AC - 50 / 60 Hz 24 V DC pas d'isolation galvanique protégée contre les inversions de polarité
Operating range	0.85 to 1.10 x Un
Maximum power consumption	3 VA at 230, 120 and 24 V AC 1 W at 24 VDC
Immunity from micro power cuts	10 ms
Delay on pick-up	500 ms
Insulation coordination	Category III Degree of pollution 2 according to IEC 664-1 VDE 0110 : 4 KV/2
Output	1 AgCdO changeover relay - 5 A - 250 V
Minimum current	100 mA
Mechanical life (operations)	5×10^6
Maximum rate	360 operations / h at full load
Electrical life (A)	AC 12 : 1250 VA - 10^5 operations AC 15 : cosφ= 0.3 - 6000 operations DC 13 : L/R = 300 ms - 6000 operations
Delay on threshold crossing	0.1 to 3 sec ± 10 %
Display on LCD	Relay status OVER or UNDER mode Memory function Type of signal (AC or DC) Measurement overflow
Class of protection (529) - Term. block	IP 20
Protection class (IEC 60529) - Panel-mounted	IP 40
Protection class (IEC 60529) - Casing	IP 50
Material housing	Self-extinguishing
Weight (g)	160
Terminal capacity	2 x 1.5 mm^2 with ferrule 2 x 2.5 mm^2 without ferrule
Tightening	0.6 mN max.
Temperature limits used (°C)	- 20 ⊞ + 60 °C
Storage temperature range (°C)	-30 →+70 °
Relative humidity (no condensation)	93 % (+2 % -3 %)
Dielectric strength V (rms)	CEI 255.5, 2.5 KV / 1 min / 1 mA / 50 Hz
Hysteresis	Adjustable from 5 to 50 % of threshold
Frequency of measured signal	40 ⊞ 500 Hz
Threshold display accuracy	± 10 %
Repetition accuracy (with constant parameters)	±0.1 %
Drift Temperature	±0.05 % / °C
Drift Voltage	<= 0.5 %

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Control of voltage (HDU) or current (HDI) without memory

Zoom

O	Legend
1	Threshold
2	Oper. R
	Overload
3	Threshold
4	Oper. R Underload
5	Hysteresis
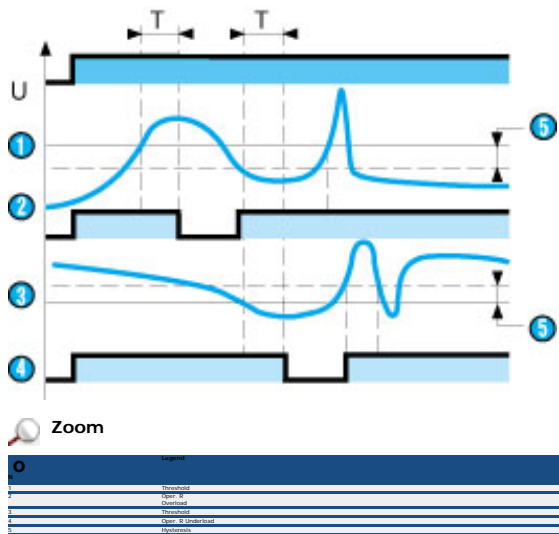
Operating principle
These devices are designed to control an AC or DC electrical signal : voltage using HDUs, current using HDIs.
The threshold and hysteresis can be adjusted separately via two potentiometers on the front face. Before powering up the device, the operating mode should be selected using two dipswitches located under the device (with/without memory, over/under value). The mode is validated when power is applied to terminals A1 - A2.
The signal to be monitored is connected between terminals E1, E2, or E3 (depending on the range) and terminal M.

When the value of the controlled signal, AC or DC, reaches the threshold set on the front face, the output relay opens (failsafe) at the end of time delay T. It closes immediately when the signal goes below (or above in under value mode) the threshold minus hysteresis (plus hysteresis in under value mode).

Notes
The threshold crossing time delay T, which can be adjusted on the front face from 0.1 to 3 sec, ensures immunity to transients and other inferference, thus preventing spurious triggering of the output relay.

In "under value" mode, the absolute value of the hysteresis cannot be more than the maximum of the measurement range.

Control of voltage (HDU) or current (HDI) with memory

Zoom

o	Legend
1	Threshold
2	Oper. R
	Overload
3	Threshold
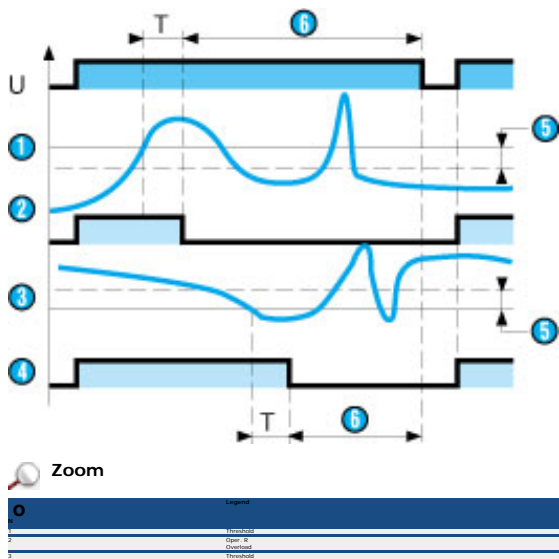
When the threshold is reached, the output relay opens at the end of time-out T and remains in that position.
To reset the relay, the supply must be cut.
This operating mode enables the detection of over or under values of short duration.

4	Oper. 2
	Underload
5	Hysteresis
6	Memory