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Made in Czech Republic

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PRI-34

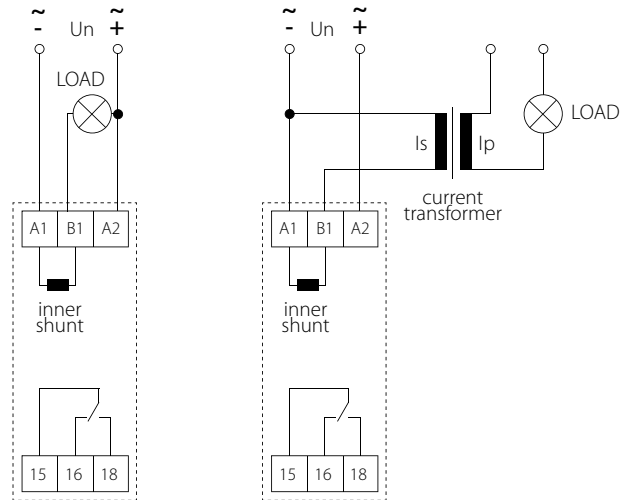
Multifunction current monitoring relay in 1P - AC



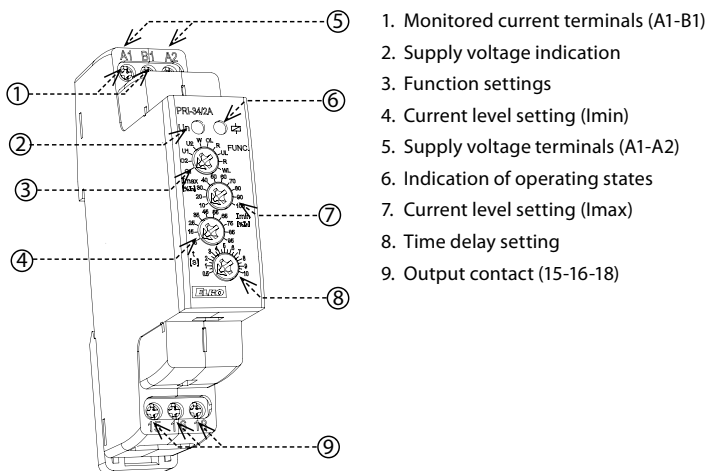
Characteristics

- It is used to monitor the value of alternating current, e.g.: motors, heating cables, lamps and other devices.
- Power supply and monitoring circuits are not galvanically isolated.
- Monitors current exceeding the upper current limit (I_{max}) and falling below the lower current limit (I_{min}) – according to the selected function.
- Smooth adjustment of both current limits.
- Adjustable time delay (to eliminate short-term current drops and spikes).
- Option to select functions with fault state memory (Latch).
- Measures true root mean square value of the current - TRUE RMS.
- Possibility to extend the current range using an external current transformer.

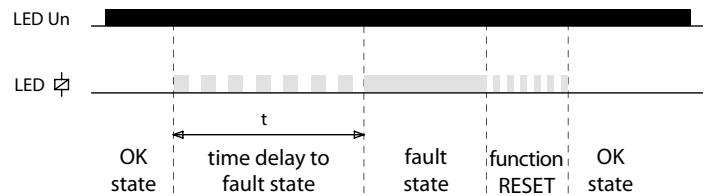
Connection



Description



Indication of operating states



Type of load	 cos φ ≥ 0.95 AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	HAL 230V AC5b	AC6a	AC7b	AC12
Contact material AgNi, 16 A	250V / 16A	250V / 5A	250V / 3A	230V / 3A (690VA)	x	800W	x	250V / 3A	250V / 10A
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Contact material AgNi, 16 A	250V / 6A	250V / 6A	250V / 6A	24V / 16A	24V / 6A	24V / 4A	24V / 16A	24V / 2A	24V / 2A

PRI-34

Supply	
Supply terminals:	A1 – A2
Supply voltage:	AC/DC 24 – 240 V (AC 50-60 Hz)
Consumption (max.):	3.8 VA/0.7 W
Supply voltage tolerance:	-15 %; +10 %

Measuring circuit	
Current range:	PRI-34/1A In - 1A PRI-34/2A In - 2A PRI-34/5A In - 5A PRI-34/8A In - 8A PRI-34/16A In - 16A (AC 50-60 Hz)
Max. permanent current/ peak overload (1 s):	PRI-34/1A 2A/10A PRI-34/2A 4A/10A PRI-34/5A 10A/16A PRI-34/8A 16A/16A PRI-34/16A 17A/32A
Current setting (Imax):	10 – 100 %In
Current setting (Imin):	5 – 95 %In
Time delay (d):	300 ms
Time delay (t):	adjustable, 0.5 – 10 s

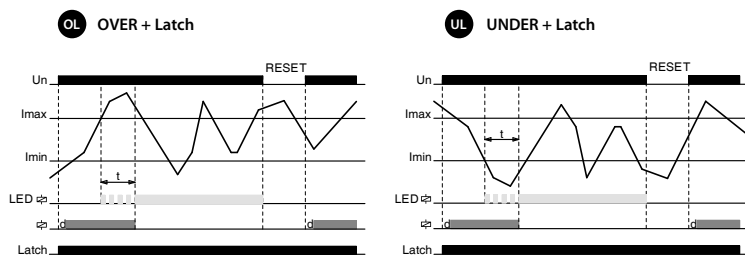
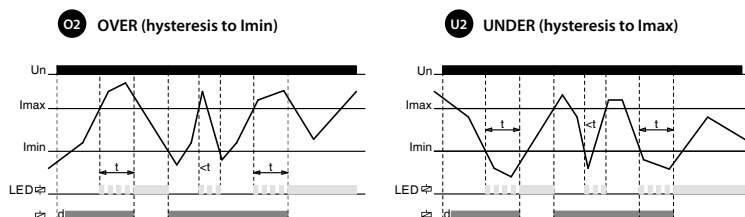
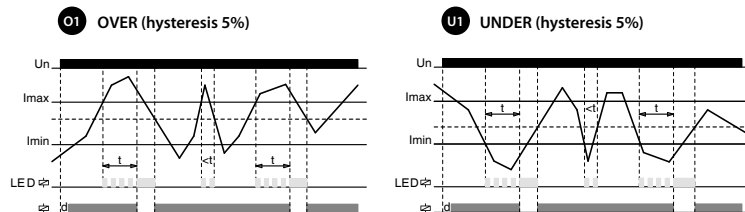
Accuracy	
Setting accuracy (mech.):	5 %
Repeatable accuracy:	< 1 %
Temperature dependency:	< 0.1 %/°C
Limit values tolerance:	5 %
Hysteresis (fault to OK):	5 % (function O1, U1, W) Imax – Imin (function O2, U2)

Output	
Number of contacts:	1x changeover (AgNi)
Current rating:	16 A/AC1
Breaking capacity:	4000 VA/AC1, 384 W/DC1
Switching voltage:	250 V AC/24 V DC
Power dissipation (max.):	1.2 W
Mechanical life:	10.000.000 ops.
Electrical life (AC1):	100.000 ops.

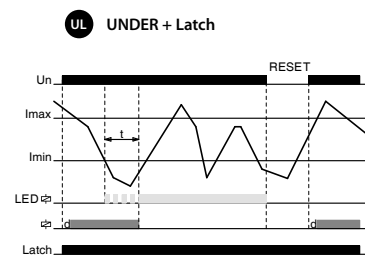
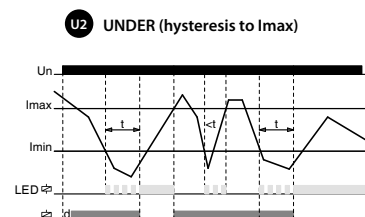
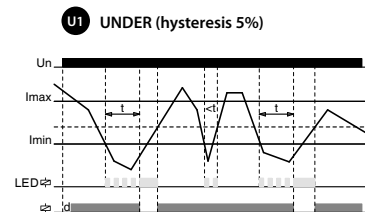
Other information	
Operating temperature:	-20 .. +55 °C (-4 .. 131 °F)
Storage temperature:	-30 .. +70 °C (-22 .. 158 °F)
Dielectric strength:	AC 4 kV (supply – output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 front panel / IP20 terminals
Overtoltage category:	III.
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 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")
Weight:	60 g (2.15 oz.)
Standards:	EN 60255-1, EN 60255-26, EN 60255-27

Warning

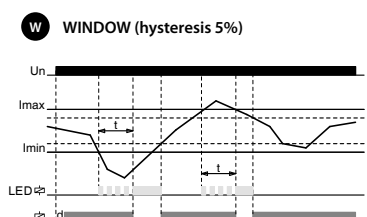
This device is constructed for connection in 1-phase network AC/DC 24 – 240 V and must be installed according to norms valid in the state of an application. Installation, connection, setting and servicing must be carried out by qualified electrician staff only, which have perfectly understood the instructions and functions of the device. This device contains protection against overvoltage peaks and disturbing impulses in the power supply network. For the correct function of the protection of this device, there must be suitable protections of higher degrees (A,B,C) installed in front of them and according to the standards, interference of switching devices must be securely eliminated (contactors, motors, inductive loads, etc.). Before installation, make sure that the device is de-energized and the main switch is in the "OFF" position. Don't install the device to sources of excessive electromagnetic interference. Ensure correct installation by perfect air circulation so that during continuous operation and a higher ambient temperature, the device does not exceed the maximum allowed operating temperature. For installation and setting use a screwdriver with a width of approx 2 mm. Keep in mind that this is a fully electronic device and approach accordingly with the installation. Non-problematic function of the device is also dependent on the previous method of transportation, storage, and handling. In case of any signs of damage, deformation, malfunction, or missing parts, don't install this device and claim it at the dealer. The product must be treated as electronic waste at the end of its life.



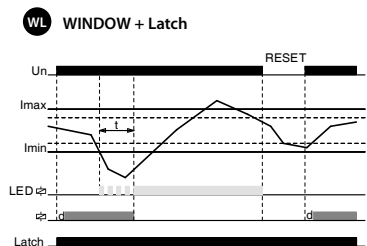
OVER:
If the amount of the monitored current is lower than the set limit „Imax“, the output contact is closed. If the „Imax“ is exceeded, the output contact will open after the set delay (fault state).
If the current falls below the fixed hysteresis (function O1) or the set lower limit (function O2), the output contact will close again.
If the OL function (OVER + Latch) is selected, when the current „Imax“ is exceeded, the output contact remains open even when the current returns from the fault state.
Fault memory reset can be done in two ways:
• Short-term interruption of supply voltage.
• By setting the function switch to position R (RESET) or any function without memory fault.
The RESET state lasts for 3 s after switching the function switch from the R position to a function with memory fault (UL, OL, WL).
When moving to any other function from the R position, this delay does not apply.



UNDER:
If the amount of the monitored current is higher than the set limit „Imin“, the output contact is closed. When the current drops below „Imin“, output contact opens after the set delay (fault state).
If the current exceeds the fixed hysteresis (function U1) or the set upper limit (function U2), the output contact closes again.
If the UL function (UNDER + Latch) is selected, when the current drops below „Imin“, the output contact remains open even when returning from the fault state. Fault memory reset can be done as in the previous case.



WINDOW:
If the amount of the monitored current is lower than „Imax“ and at the same time higher than „Imin“, the output contact is closed. If the „Imax“ is exceeded or drop below the „Imin“, output contact opens after the set delay (fault state).
To return from the fault state, a fixed hysteresis is applied.
If the WL function (WINDOW + Latch) is selected, the fault state is stored in memory again even when returning from the fault state. Fault memory reset can be done as in the previous cases.



Graphs legend:
t = time delay to fault state
d = delay 0.3 s after connection of power supply (Un)