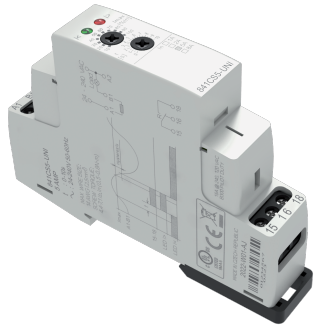
Instruction Manual



Current Sensing Relay

Features

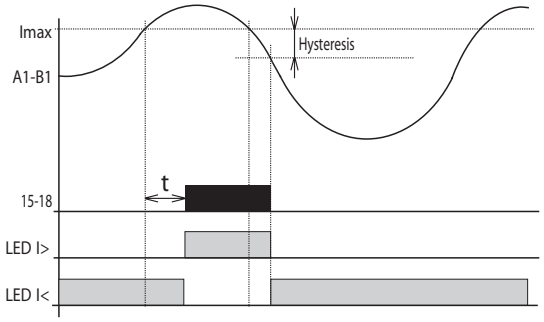
- Single phase current sensor for monitoring AC current
- Supply voltage range from 24 to 240 VAC (50/60Hz)
- Timing capabilities from 0 - 10 sec.
- 2 LED status indicators
- DIN rail mountable
- Only 17.6 mm wide
- Works with external current transformers

This device is designed to be used in single phase applications 24 to 240 VAC. Connections to this device must be made according to the details in this instruction sheet. Installation, wiring, setting and servicing should be performed by qualified electrician staff only, who understand this instruction sheet and functions of the device.

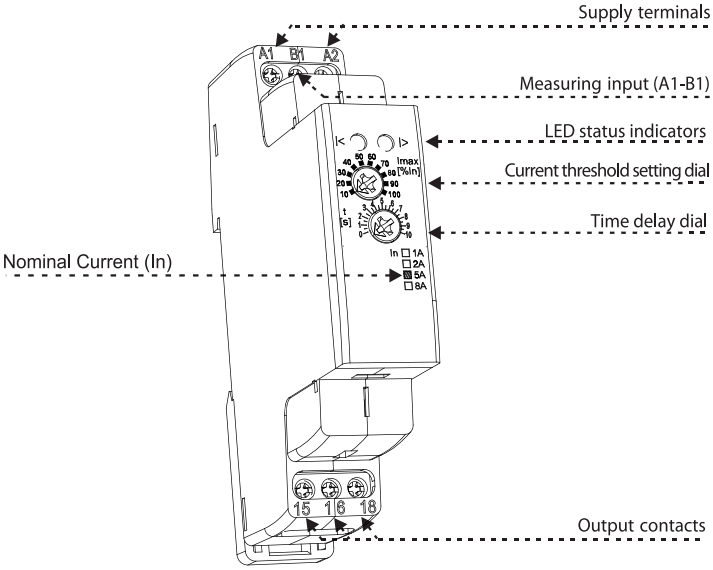
Ensure that all power has been removed from the device prior to beginning the installation. Qualified installer must also ensure the device is being installed into a temperature controlled environment which will guarantee the specified operating temperature range. For installation and setting use a screw driver with 2 mm tip.

Principle of operation

The 841 current sensor is a complete current sensing solution in one modular package which mounts directly on a DIN rail. This product allows to monitor the current of one circuit (1 to 8 A) and switch another circuit in case of an over current condition. The built-in time delay feature allows the user to accurately switch the output anytime between 0 to 10 seconds after the preset current monitoring condition is violated. It also, has the capability to extend the sensing range up to 600 A with use of current transformers.

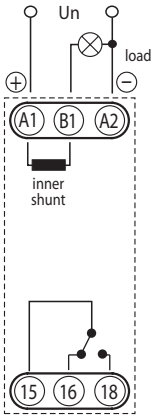


Product Layout

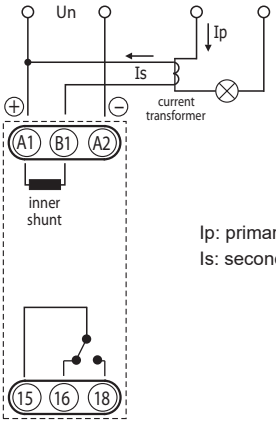


Connection

Wiring for direct current sensing.

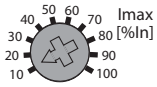


Wiring for current sensing through current transformer.

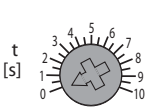


Ip: primary current
Is: secondary current

Description of control components



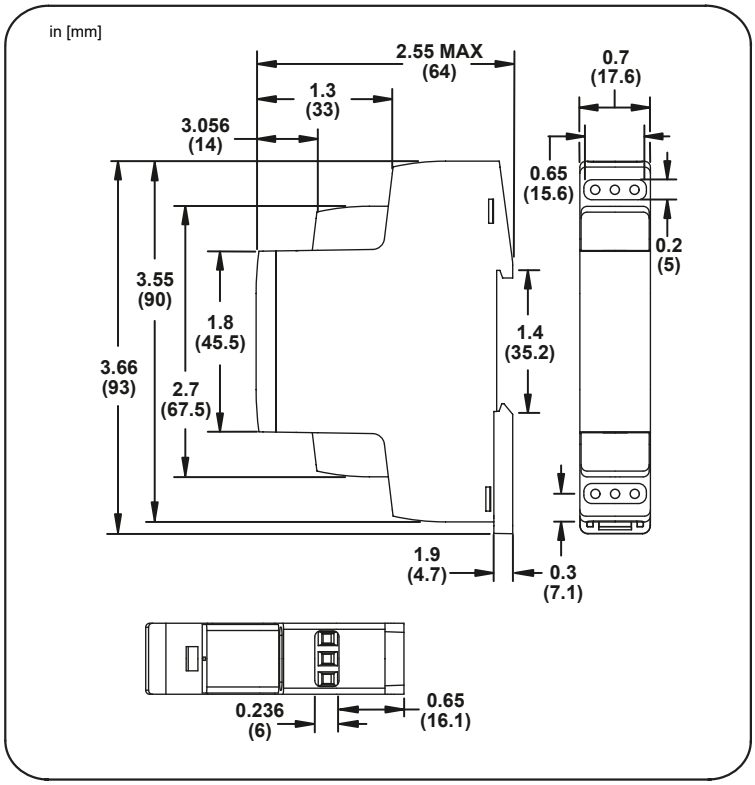
Setting of threshold as % of nominal current.
When the preset threshold is crossed,
the RED led will illuminate and output contacts change over after preset time delay.



Setting of delay
The time delay can be set anywhere from 0 to 10 seconds.
Its purpose is to delay the transfer of output contacts in order to avoid nuisance tripping.

Relay contact 15 A	Load							
				70µF		AC1	AC3	AC15
AgNi	1000 W					4000 VA	0.9 kW	750 VA

Technical parameters

Supply circuit	
Supply terminals:	A1 - A2
Supply voltage:	AC 24 - 240 V (AC 50 - 60 Hz)
Power Consumption:	max. 1.5 VA
Supply voltage tolerance:	-15 %; +10 %
Measuring circuit	
Load:	between A2 - B1
Current range:	1 AMP AC 0.1 - 1 A 2 AMP AC 0.2 - 2 A 5 AMP AC 0.5 - 5 A 8 AMP AC 0.8 - 8 A
Max. carrying current / inrush overload <1ms:	1 AMP 1 A / 2.5 A 2 AMP 2 A / 2.5 A 5 AMP 5 A / 6.3 A 8 AMP 8 A / 20 A
Time delay:	adjustable, 0 - 10 sec
Accuracy	
Setting accuracy:	5 %
Repeat accuracy:	<1 %
Temperature dependancy:	< 0.1 % / °C
Tollerance limit:	5 %
Hysteresis (fault to OK):	0.6-1.2 % of the range
Output	
Number of contacts:	1x changeover, (AgNi)
Rated current:	15 A / AC1
Breaking capacity:	4000 VA / AC1
Output indication:	green / red LED
Other information	
Operating temperature:	-20 .. +55 °C
Storage temperature:	-30 .. +70 °C
Electrical strength:	4 kV (supply - output)
Operating position:	any
Mounting:	35mm DIN rail EN 60715
Protection degree:	IP 20
Overvoltage category:	III
Pollution degree:	2
Terminal wire size (max.):	14 AWG (2.5 mm^2)
Recommended torque:	7.1 lb-in (0.8 Nm)
Dimensions:	90 x 17.6 x 64 mm
Weight:	63 g
Standards:	UL E234203, EN 61010-1 EN 60255-26, EN 60255-27

Dimensions