

Features

- serves for monitoring of heating poles in rail-switches, heating cables, current flow indication, monitoring of take-OFF in 1-phase engines slight...
- - adjusting of actualing current via potentiometer, choice from 7 ranges:
- AC 0.05 - 0.5 A; AC 0.1 - 1 A; AC 0.2 - 2 A; AC 0.5 - 5 A; AC 0.8 - 8 A; AC 0.1 - 10 A; AC 1.6 - 16 A
- adjustable delay 0.5 - 10 s (eliminat short current peaks, on of short...)
- possible to use for scanning of current from current transformer
- universal supplyoltage AC 24 - 240 V and DC 24 V
- supplying is galvanically separated from measured current
- output contact: 1x changeover 8 A
- 1-phase version, 1-MODULE, DIN rail mounting, replacement for PRI-31

RS PRO Family Name

0766919 RS PRO



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

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Supply

Supply terminals:	A1-A2
Voltage range:	AC 24 – 240 V and DC 24V (AC 50-60 Hz)
Burden:	max. 25 VA / 1.6 W
Max. Dissipated power (Un + terminals):	– 2.5 W
Supply voltage tolerance:	–15%; +10%

Measuring circuit

Load:	Between B1 – B2
Current range:	PRI-51/5A*: SC 0.5-5A (AC 50-60 Hz)
Max. permanent current:	PRI-51/5A: 17A
Inrush overload < 1 s:	50A
Current adjustment:	potentiometer
Time delay:	Adjustable, 0.5 – 10 s

Accuracy

Setting accuracy (mechanical):	5 %
Repeatable accuracy:	< 1 %
Temperature dependency:	< 0.1 %/°C (°F)
Limit values tolerance:	5 % (10 % for 0.05 - 0.5 A and 0.1 - 10 A range)
Hysteresis (fault to OK):	5%

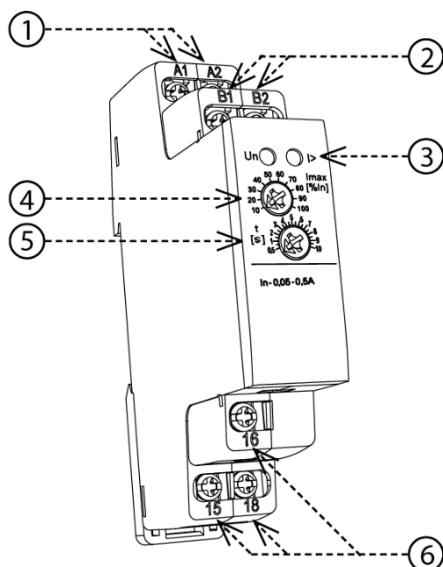
Output

Number of contacts:	1x changeover / SPDT (AgNi / Silver Alloy)
Current rating:	8 A/AC1
Breaking capacity:	2000 VA / AC1, 240 W / DC
Output indication:	red LED

Other information

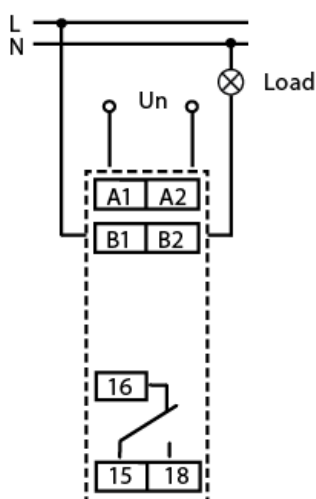
Operating temperature:	-20°C to +55 °C (-4°F to +131 °F)
Storage temperature:	-30 °C to +70 °C (-22 °F to +158 °F)
Electric strength:	4 kV (supply – output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 front panel / IP20 terminals
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm2):	solid wire max. 2x 2.5 or 1x 4 / with sleeve max. 1x 2.5 or 2x 1.5 (AWG 12)
Dimensions:	90 × 17.6 × 64 mm (3.5" × 0.7" × 2.5")
Weight:	72 g (2.54 oz.)
Standards:	EN 60255-1, EN 60255-26, EN 60255-27

Approvals

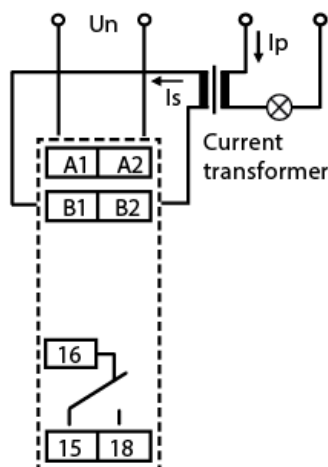


1. Supply voltage terminals
2. Measuring input (only AC)
3. Output indication
4. Setting of current level - it's crossing over is indicated by closed relay and shining of red LED diode
5. Setting of delay - delay of output reaction to crossing over the set current level
6. Output contacts

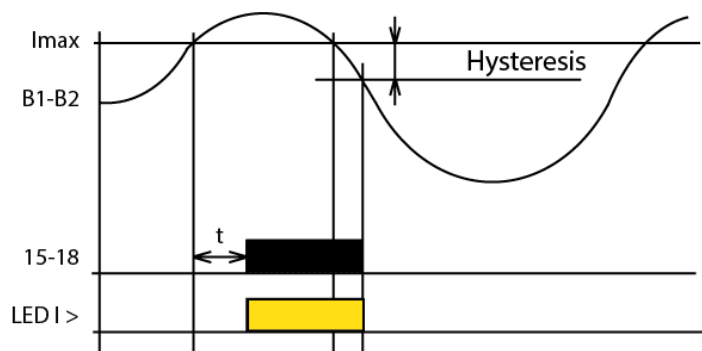
Connection



Example of connection PRI-51 with current transformer for current range increase



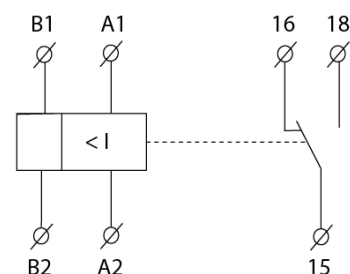
Function



Monitoring relay PRI-51 serves to monitor current level in one-phase AC circuits. Gradual setting of actuating current of monitoring relay enables many different applications. Output relay is in normal state opened. After the set current level is reached, relay closes after the set delay (0.5 - 10 s). When returning from faulty to normal state there is a hysteresis (5 %). Multi-voltage of this relay is an advantage. It is possible to monitor load which doesn't have the same supply as monitoring relay PRI-51.

Range of PRI-51 can be increased by an external current transformer.

Symbol



Always specify all reference name of current relay according to required range, for example PRI-51/5.