

PRI-41, PRI-42 | Current monitoring relays of Imin and Imax in 1P - AC/DC



EAN code
 PRI-41/UNI: 8595188185349
 PRI-41/400V: 8595188147446
 PRI-42/UNI: 8595188185356
 PRI-42/400V: 8595188147484

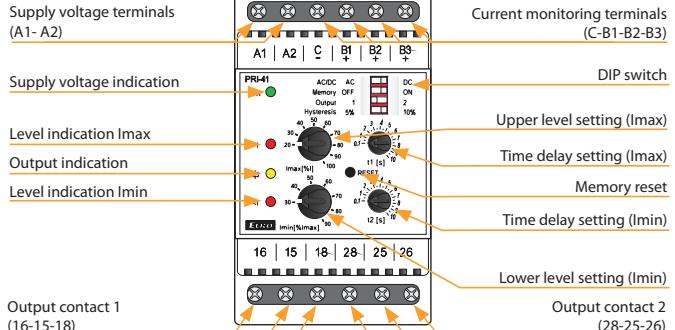
	PRI-41	PRI-42	
Supply circuit			
Supply terminals:	A1-A2		
Supply voltage:	AC/DC 24 – 240 V (AC 50-60 Hz)	UNI	
Consumption (max.):	3 VA/1 W		
Supply voltage:	AC 400 V (50-60 Hz)	400V	
Consumption (max.):	5 VA/2.5 W		
Supply voltage tolerance:	-15 %; +10 %		
Measuring circuit			
Monitored terminals:	C-B1	C-B2	C-B3
Monitored ranges*:	AC/DC 3.2 – 16 A (AC 50-60 Hz)	AC/DC 1 – 5 A (AC 50-60 Hz)	AC/DC 0.32 – 1.6 A (AC 50-60 Hz)
Input resistance:	2.3 mΩ	11 mΩ	23 mΩ
Max. permanent current:	16 A	8 A	3 A
Inrush overload (1 s):	20 A	16 A	6 A
Time delay Imax (t1):	adjustable, 0.1 – 10 s		
Time delay Imin (t2):	adjustable, 0.1 – 10 s		
Accuracy			
Setting accuracy (mech.):	5 %		
Repeat accuracy:	< 1 %		
Temperature dependance:	< 0.1 %/°C (°F)		
Limit values tolerance:	5 %		
Hysteresis (fault to OK):	selectable, 5 %/10 % from the upper range value		
Output			
Contact type:	2x changeover/SPDT (AgNi)		
Current rating:	16 A/AC1; 1 HP 240 Vac, 1/2 HP 120 Vac; PD. B300		
Breaking capacity:	4000 VA/AC1, 384 W/DC1		
Inrush current:	30 A/< 3 s		
Switching voltage:	250 V AC/24 V DC		
Power dissipation (max.):	2.4 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	AC 4 kV		
output 1 – output 2	AC 4 kV		
Operating position:	any		
Mounting:	DIN rail EN 60715		
Protection degree:	IP40 front panel / IP20 terminals		
Oversupply category:	III.		
Pollution degree:	2		
Cross-wire section – solid/stranded with ferrule (mm²):	max. 1 x 2.5, 2 x 1.5/ max. 1 x 2.5 (AWG 14)		
Dimensions:	90 x 52 x 65 mm (3.5" x 2" x 2.6")		
Weight:	UNI – 166 g (5.86 oz), 400V – 248 g (8.7 oz)		
Standards:	EN 60255-1, EN 60255-26, EN 60255-27		

* Only one input can be monitored at a time.

- Used to monitor overload/relief (machines, motors, etc.), check consumption, diagnostic on a remote device (burning, short circuit, increased current draw, etc.)
- Relay is used for monitoring AC or DC current in three ranges.
- Monitors level of current in two independent levels (Imax, Imin).
- Setting the monitored upper level (Imax) in % of range.
- Setting the monitored lower level (Imin):
 - in % of the set upper limit (PRI-41, function HYSTERESIS)
 - in % of range (PRI-42, function WINDOW)
- Selectable function of output contacts (independently/in parallel).
- Independent adjustable time delay of both levels (eliminating short-term drops and spikes).
- Galvanically separated power supply from monitoring inputs.
- Output contact for each monitored current level.

Description

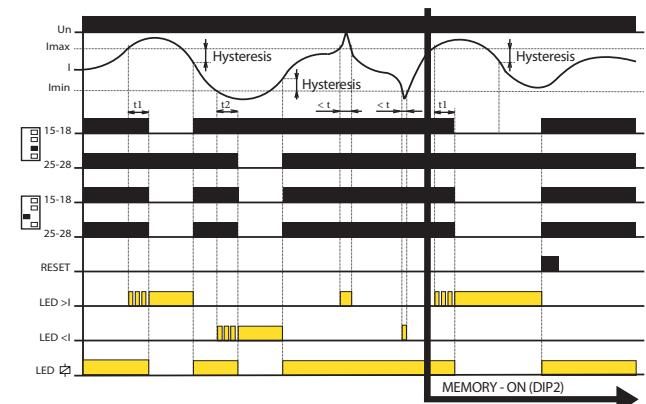
PRI-41



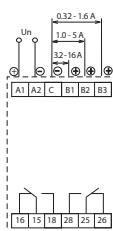
Description of DIP switch



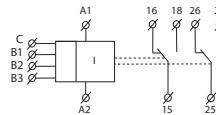
Function



Connection



Symbol



If the value of the monitored current is in the zone between the set upper and lower levels, the OK state occurs, both output contacts are closed and the yellow LED illuminates. If the value of the monitored current is outside the set limits ($I > I_{\text{max}}$ or $I < I_{\text{min}}$), a fault state occurs.

When moving to a fault state ($I > I_{\text{max}}$), time delay t_1 is running and red LED $>I$ simultaneously flashes. After the time t_1 elapses, the red LED $>I$ illuminates and the relevant output contact opens.

When moving to a fault state ($I < I_{\text{min}}$), time delay t_2 is running and red LED $<I$ simultaneously flashes. After the time t_2 elapses, the red LED $<I$ illuminates and the relevant output contact opens.

When moving from a fault state to the OK state, the relevant red LED immediately goes out, and the corresponding output contact closes.