



## Input Specifications (cont.)

Measuring ranges (cont.)		
Standard CT (examples)	AAC <sub>rms</sub>	Max. curr.
TADK2 50 A/5 A	5 to 50 A	60 A
CTD1 150 A/5 A	15 to 150 A	180 A
CTD4 400 A/5 A	40 to 400 A	480 A
TAD12 1000 A/5 A	100 to 1000 A	1200 A
TACO200 6000 A/5 A	600 to 6000 A	7200 A

**Note:**  
The input voltage cannot raise over 300 VAC/DC with respect to ground (PIB01 only)

Contact input	
DIB01	Terminals Z1, Y1
PIB01	Terminals 8, 9
Disabled	> 10 kΩ
Enabled	< 500 Ω
Latch disable	> 500 ms

## Output Specifications

<b>Output</b>	SPDT relay
Rated insulation voltage	250 VAC
<b>Contact ratings (AgSnO<sub>2</sub>)</b>	μ
Resistive loads AC 1	8 A @ 250 VAC
DC 12	5 A @ 24 VDC
Small inductive loads AC 15	2.5 A @ 250 VAC
DC 13	2.5 A @ 24 VDC
<b>Mechanical life</b>	≥ 30 x 10 <sup>6</sup> operations
<b>Electrical life</b>	≥ 10 <sup>5</sup> operations (at 8 A, 250 V, cos φ = 1)
<b>Operating frequency</b>	≤ 7200 operations/h
<b>Dielectric strength</b>	
Dielectric voltage	≥ 2 kVAC (rms)
Rated impulse withstand volt.	4 kV (1.2/50 μs)

## Supply Specifications

<b>Power supply</b>	Overvoltage cat. III (IEC 60664, IEC 60038)	<b>DC supply</b>	<b>AC supply</b>
Rated operational voltage through terminals:		2 kV	4 kV
A1, A2 or A3, A2 (DIB01)		4 kV	4 kV
2, 10 or 11, 10 (PIB01)		4 kV	4 kV
D48:	24 to 48 VAC/DC ± 15%		
	45 to 65 Hz, insulated		
B23:	115/230 VAC ± 15%		
	45 to 65 Hz, insulated		
<b>Rated operational power</b>		4 VA	
AC		0.8 W	
DC			

## General Specifications

<b>Power ON delay</b>	1 s ± 0.5 s or 6 s ± 0.5 s	<b>Housing</b>	
<b>Reaction time</b>	(input signal variation from -20% to +20% or from +20% to -20% of set value)	Dimensions	DIB01 22.5 x 80 x 99.5 mm PIB01 36 x 80 x 94 mm
Alarm ON delay	< 100 ms	Material	PA66 or Noryl
Alarm OFF delay	< 100 ms	<b>Weight</b>	Approx. 150 g
<b>Accuracy</b>	(15 min warm-up time)	<b>Screw terminals</b>	
Temperature drift	± 1000 ppm/°C	Tightening torque	Max. 0.5 Nm acc. to IEC 60947
Delay ON alarm	± 10% on set value ± 50 ms	<b>Product standard</b>	EN 60255-6
Repeatability	± 0.5% on full-scale	<b>Approvals</b>	UL, CSA
<b>Indication for</b>		<b>CE Marking</b>	L.V. Directive 2006/95/EC EMC Directive 2004/108/EC
Power supply ON	LED, green	EMC	
Alarm ON	LED, red (flashing 2 Hz during delay time)	Immunity	According to EN 60255-26 According to EN 61000-6-2
Output relay ON	LED, yellow	Emissions	According to EN 60255-26 According to EN 61000-6-3
<b>Environment</b>	(EN 60529)		
Degree of protection	IP 20		
Pollution degree	3 (DIB01), 2 (PIB01)		
Operating temperature	-20 to 60°C, R.H. < 95%		
Storage temperature	-30 to 80°C, R.H. < 95%		

## Mode of Operation

DIB01 and PIB01 monitor both AC and DC over or under current through an internal shunt.

### Example 1

(connection between terminals Z1, Y1 or 8, 9 - latching function enabled)

The relay operates and latches in operating position when the measured value

exceeds (or drops below) the set level for more than the set delay time. Provided that the current has dropped below (or has exceeded) the set point (see hysteresis setting), the relay releases when the interconnection between terminals Z1, Y1 or 8, 9 is interrupted or the power supply is interrupted as well.

The red LED flashes until the

delay time has expired or the measured value comes back to a non-alarm value (see hysteresis setting).

### Example 2 (Standard CT)

(no connection between terminals Z1, Y1 or 8, 9 - latch function disabled)

The relay operates when the measured value exceeds (or drops below) the set level for

more than the set delay time. It releases when the current drops below (or exceeds) the set level (see hysteresis setting) or when power supply is interrupted.

### Note

When the inhibit contact is opened, if the input signal is already in alarm position, the delay time needs to elapse before relay activation.

## Function/Range/Level and Time Delay Setting

Adjust the input range setting the DIP switches 1 and 2 as shown below (except for models DIB01xxx10A and PIB01xxx10A). Select the desired function setting the DIP switches 3 to 6 (1 to 4 for DIB01xxx10A and PIB01xxx10A) as shown below.

To access the DIP switches open the grey plastic cover as shown below.

**Selection of level and time delay:**

### Upper knob:

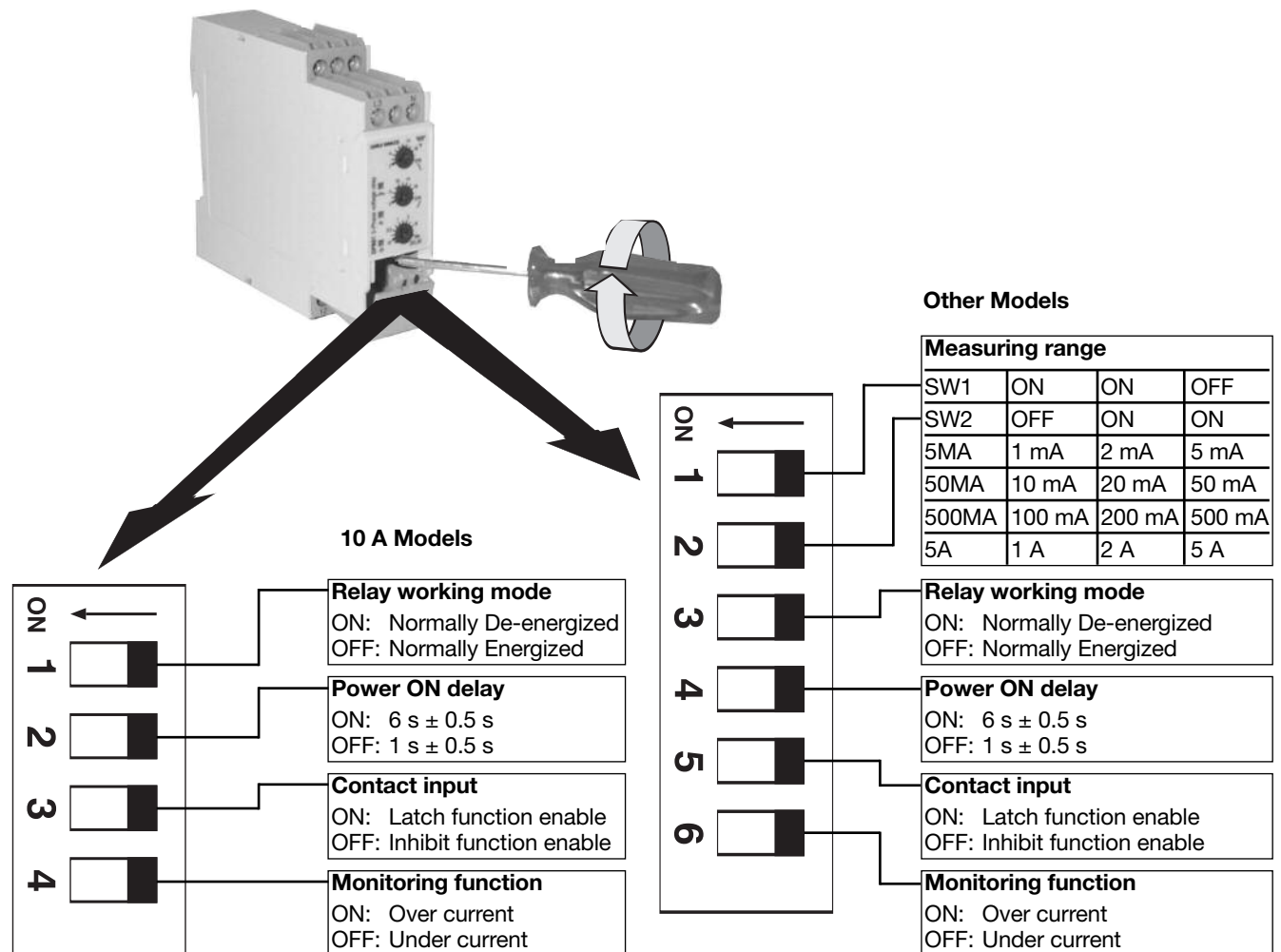
Setting of hysteresis on relative scale: 0 to 30% on set value.

### Centre knob:

Current level setting on relative scale: 10 to 110% on full scale.

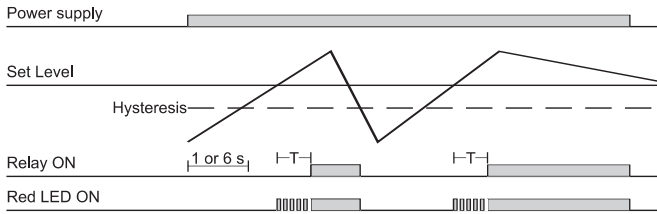
### Lower knob:

Setting of delay on alarm time on absolute scale (0.1 to 30 s).

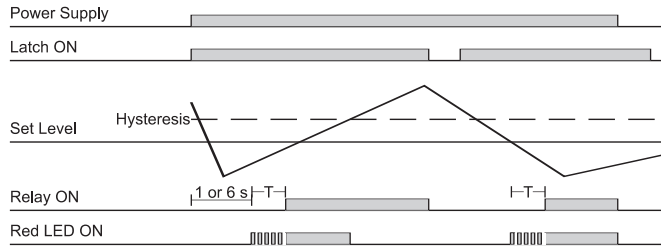


## Operation Diagrams

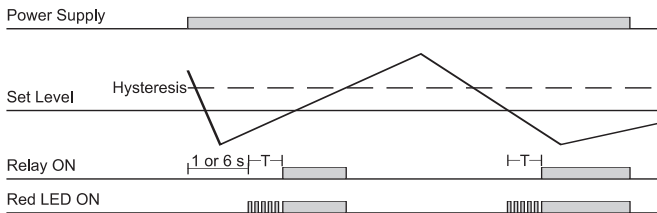
### Over current - N.D. relay



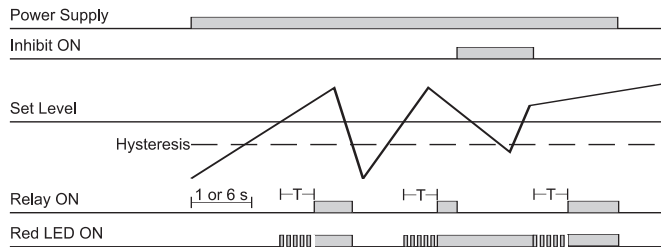
### Under current - Latch function - N.D. relay



### Under current - N.D. relay

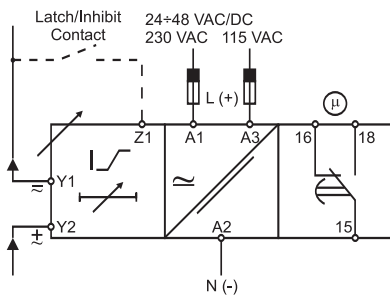


### Over current - Inhibit function - N.D. relay

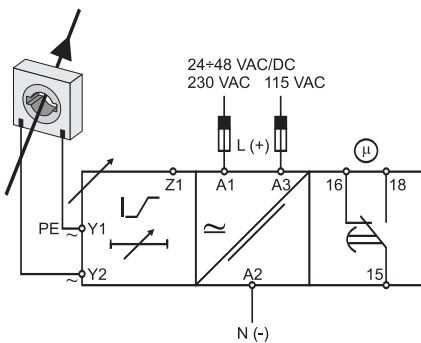


## Wiring Diagrams

### Example 1

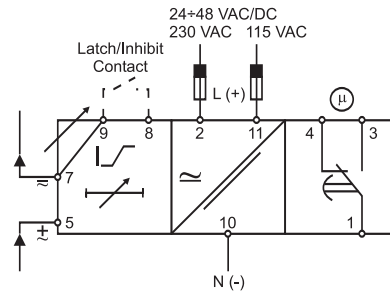


### Example 2

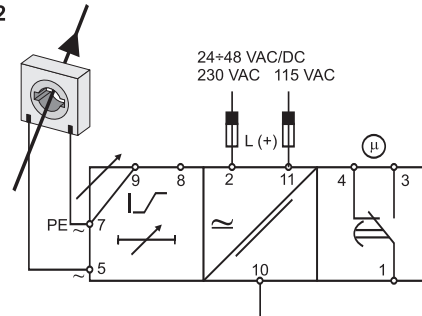


DIB01

### Example 1



### Example 2



PIB01