



Output Specifications

Output Rated insulation voltage	SPDT relay 250 VAC
Contact ratings (AgSnO ₂)	μ
Resistive loads AC 1	5 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
Mechanical life	≥ 30 x 10 ⁶ operations
Electrical life	≥ 10 ⁵ operations (at 5 A, 250 V, cos φ = 1)
Operating frequency	≤ 7200 operations/h
Dielectric strength	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand volt.	4 kV (1.2/50 μs)

Supply Specifications

Power supply Rated operational voltage through terminals: A1, A2 or A3, A2	Overvoltage cat. III (IEC 60664, IEC 60038)
B48:	24/48 VAC ± 15% 45 to 65 Hz, insulated
B23:	115/230 VAC ± 15% 45 to 65 Hz, insulated
Dielectric voltage	
Supply to input	4 kV (1.2/50 μs)
Supply to output	4 kV (1.2/50 μs)
Input to output	4 kV (1.2/50 μs)
Rated operational power AC	3 VA

Mode of Operation

DIB71 monitors both AC and DC over or under current through an internal shunt.

Example 1

(connection between terminals Z1, Y1 - 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 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 - 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.

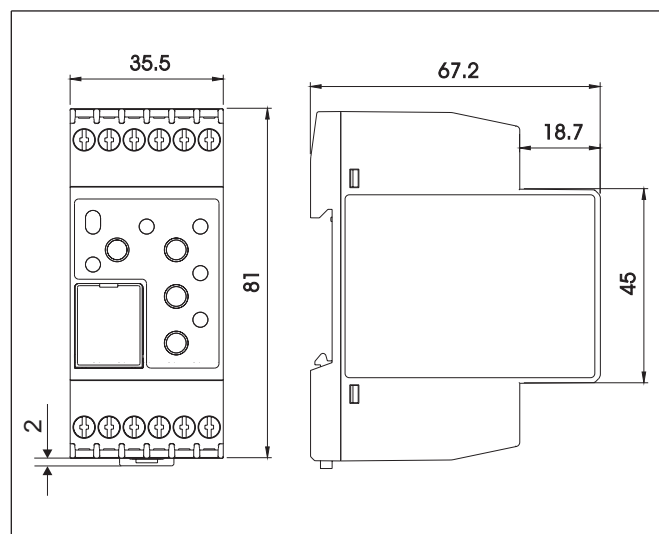
Note

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

General Specifications

Power ON delay	1 s ± 0.5 s or 6 s ± 0.5 s
Reaction time	(input signal variation from -20% to +20% or from +20% to -20% of set value)
Alarm ON delay	< 100 ms
Alarm OFF delay	< 100 ms
Accuracy	(15 min warm-up time)
Temperature drift	± 1000 ppm/°C
Delay ON alarm	± 10% on set value ± 50 ms
Repeatability	± 0.5% on full-scale
Indication for	
Power supply ON	LED, green
Alarm ON	LED, red (flashing 2 Hz during delay time)
Output relay ON	LED, yellow
Environment	(EN 60529)
Degree of protection	IP 20
Pollution degree	3
Operating temperature	5A -20 to 50°C, R.H. < 95%
others	-20 to 60°C, R.H. < 95%
Storage temperature	-30 to 80°C, R.H. < 95%
Housing dimensions	35.5 x 81.5 x 67 mm
Weight	Approx. 150 g
Screw terminals	
Tightening torque	Max. 0.5 Nm acc. to IEC 60947
Approvals	UL, CSA
CE Marking	Yes
EMC	
Immunity	Electromagnetic Compatibility According to EN 61000-6-2
Emission	According to EN 50081-1

Dimensions



Function/Range/Level and Time Delay Setting

Adjust the input range setting the DIP switches 1 and 2 as shown in figure.

Select the desired function setting the DIP switches 3 to 6 as shown in figure.

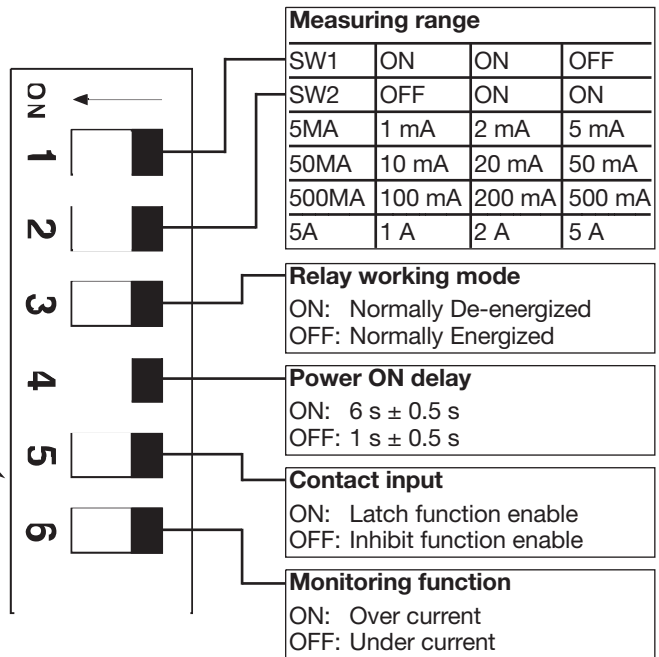
To access the DIP switches open the plastic cover as shown in figure.

Selection of level and time delay:

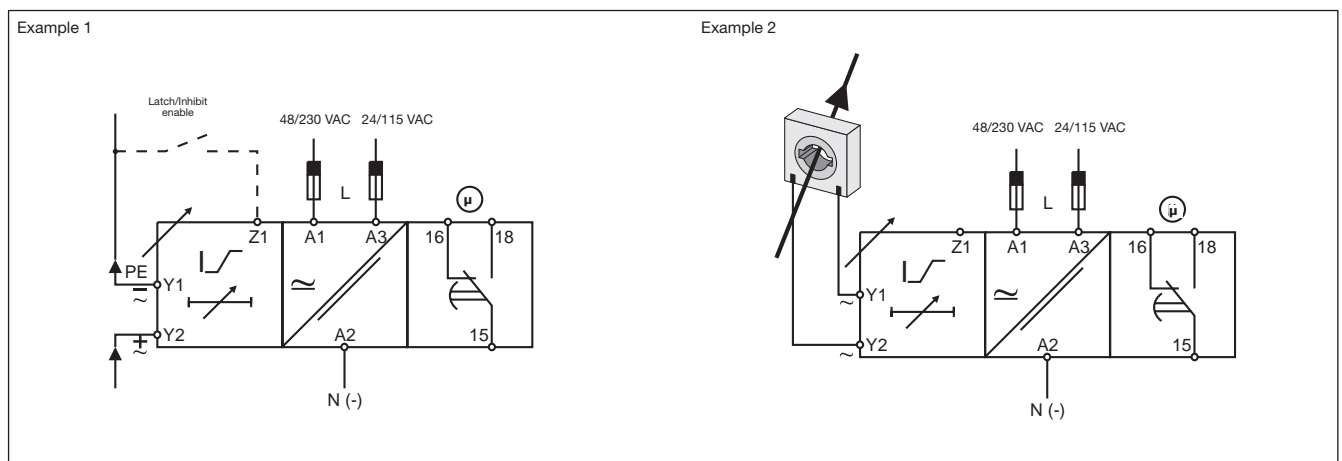
Upper knob:
Setting of hysteresis on relative scale: 0 to 30% on set value.

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).

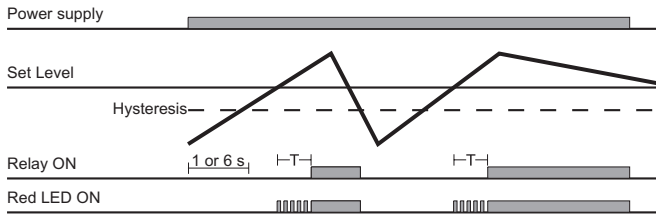


Wiring Diagrams

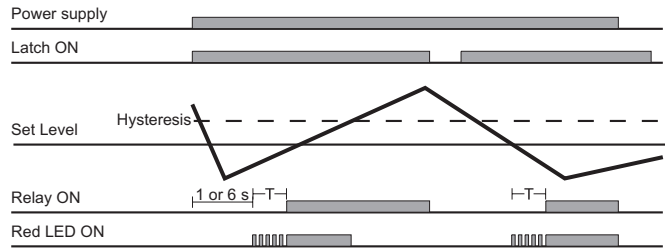


Operation Diagrams

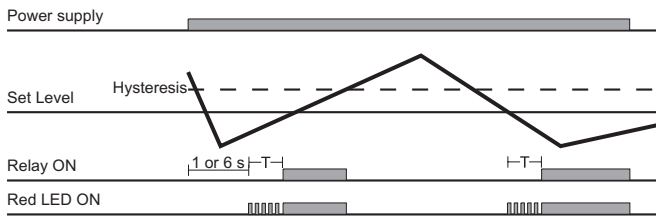
Over current - N.D. relay



Under current - Latch function - N.D. relay



Under current - N.D. relay



Over current - Inhibit function - N.D. relay

