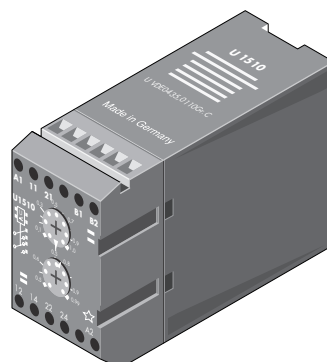


Monitoring Relay 1500

Single-phase Current Monitoring Relay I1540

- Standard type GL
- Operating range $-25\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$
- Monitoring of undercurrent for DC and AC voltages



Order Code

Order code	I	1540.	2	-	0.1 - 1 A	24 VAC	50 / 60 Hz
Current monitoring relay							
I	I						
Monitored variable							
1540 Single-phase - undercurrent		1540.					
Contact arrangement							
2 C/O			2				
Monitored current range							
2 - 20 mA					2 - 20 mA		
10 - 100 mA					10 - 100 mA		
50 - 500 mA					50 - 500 mA		
0.1 - 1 A					0.1 - 1 A		
0.5 - 5 A					0.5 - 5 A		
1 - 10 A					1 - 10 A		
Supply voltage							
24 VAC						24 VAC	
110 / 115 VAC						110 / 115 VAC	
230 VAC						230 VAC	
240 VAC						240 VAC	
400 VAC						400 VAC	
24 VDC* (no frequency stated)						24 VDC	
Frequency							
50 / 60 Hz							50 / 60 Hz

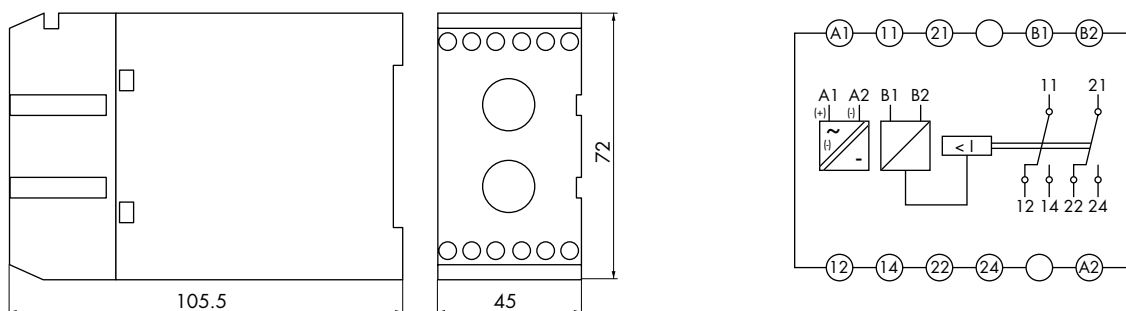
* See page 71 for series resistors for the 24 VDC device (for supply voltages above 24 VDC)

Contact Data

	I1540
Contact arrangement	2 C/O
Type of contact	Single contact
Contact material	AgCdO
Nominal contact current	5 A
Inrush current	$\leq 5\text{ A}$
Max. switching capacity	1100 VA
Nominal contact voltage	250 VAC

Monitoring Relay 1500

Dimensions, Connection Diagram(s)



General Data

	I1540
Display	1 green LED lights if the output relay is pulled up
Insulation group VDE 0110b/2.79	C250
Test voltage	2500 VAC
Auxiliary circuit - output circuit - monitoring circuit	
Vibration resistance	4 g at 25 - 100 Hz (in accordance with GL)
Terminals	Tension relief terminal with head screws metric M 2.6
Terminal torque	max. 0.6 Nm
Terminal capacity	
solid conductor	2 x 1.5 mm ²
flexible conductor with ferrule	2 x 1.5 mm ²
Operating temperature	-25 °C to +70 °C
Storage temperature	-25 °C to +85 °C
Protection in accordance with DIN 40050	IP40 Housing IP20 Screws IP10 Clamps
Mounting	Rail in accordance with EN50022-35 x 7.5/15 Screw mounting with mounting plate
Weight	approx. 300 g

Auxiliary Circuit

Nominal line voltages	see order code
Nominal line frequency	50 / 60 Hz if AC devices
Voltage ranges	AC = ± 20 % at 100 % ED +50 % for 10 s 10 %ED DC = 24 VDC +25 %/-10 %
Rated power	2.0 VA cos φ = 0.7

Monitoring Relay 1500

Monitoring Circuit

	I1540		
Pull-in current I_{an} adjustable acc. to the upper scale	Input resistance in Ω	Continuous overload in A	Overload duration 1 s in A
2 - 20 mA	3	0.5	0.63
10 - 100 mA	1	1	1.25
50 - 500 mA	0.25	2	2.5
0.1 - 1 A	0.11	3	3.7
0.5 - 5 A	0.01	10	12.25
1 - 10 A	0.005	15	15
Adjustment error	$\leq 4\%$		
Drop-out current I_{ab}	Permanently adjustable between $0.5 - 0.99 \times I_{an}$ acc. to the lower scale		
Temperature dependence	$\leq 0.01\%/K$		
Variance of switching points under identical conditions	$\leq 0.5\%$		
Monitored value	The arithmetic mean value is measured. The scales are adjusted to sinusoidal AC current. If just DC currents without any harmonic contents are measured, the desired switching point should be multiplied by 0.89 and the result set on the scale.		

Series Resistance for the 24 VDC Device

Supply voltage U_v in VDC	48 VDC	60 VDC	110 VDC	220 VDC
Series resistance R_v in Ω	470	750	1800	3900
Power rating P of R_v in W	1.23	1.7	4.1	9.8
Max. power P of R_v in W	1.92	2.7	6.4	15.4