

Overview

RL 9836 and RL 9854 Varimeter Series

Dold VARIMETER series measuring relays are specifically designed to protect equipment in single-phase AC or DC voltage systems from fault conditions, such as overvoltage, undervoltage, or exceeding a voltage band. These relays provide reliable voltage monitoring without the need for external power sources. Four single-turn switches provide quick and easy setup, allowing these relays to be configured for a broad range of applications.

Features

RL 9836

- According to IEC/EN 60255-1
- For DC monitoring
- Detection of
- Overvoltage
- Undervoltage
- Voltage range excess in single-phase DC voltage systems
- No separate auxiliary voltage necessary
- Output: 1 changeover contact
- De-energized on trip
- Adjustable switching voltage
- Adjustable hysteresis for reset
- Adjustable switching delay
- Fast fault detection
- Width 35mm

RL 9854

- According to IEC/EN 60255-1
- For monitoring AC single phase with 50 /60 Hz
- Detection of
- Overvoltage
- Undervoltage
- Voltage range excess in single-phase AC voltage systems
- No separate auxiliary necessary
- Output: 1 changeover contact
- De-Energized on trip
- Adjustable switching voltage
- Adjustable hysteresis for reset
- Adjustable switching delay
- Fast fault detection
- Width 35mm

RL 9836



RL 9854

Application

- Monitoring of voltage systems to detect over- and undervoltage
- Switch over to emergency supply after fault detection

Approvals

RL 9836, RL 9854



Reference Guide

The reference guide below provides general information on the different versions of Dold Voltage Monitor Relays offered by AutomationDirect.com (see Product Selection on the following pages for further details).

Series	Under Voltage	Over Voltage	
RL 9836	> 24 VDC	< 250 VDC	
RL 9854	> 45 VAC	<528 VAC	



Voltage Relays

Voltage Measuring Relays					
Part Number	Price	Description	Drawing Link		
<u>RL9836DC24-130V</u>	\$120.00	Dold voltage monitor relay, 1-phase, 35mm DIN rail mount, 24-130 VDC input voltage, SPDT, 5A contact rating, screw terminal(s), LED indicator(s), overvoltage, undervoltage and voltage range protection.	PDF		
<u>RL9836DC50-250V</u>	\$120.00	Dold voltage monitor relay, 1-phase, 35mm DIN rail mount, 50-250 VDC input voltage, SPDT, 5A contact rating, screw terminal(s), LED indicator(s), overvoltage, undervoltage and voltage range protection.	PDF		
<u>RL9854AC100-300V</u>	\$110.00	Dold voltage monitor relay, 1-phase, 35mm DIN rail mount, 100-300 VAC input voltage, SPDT, 5A contact rating, screw terminal(s), LED indicator(s), overvoltage, undervoltage and voltage range protection.	PDF		
<u>RL9854AC45-135V</u>	\$110.00	Dold voltage monitor relay, 1-phase, 35mm DIN rail mount, 45-135 VAC input voltage, SPDT, 5A contact rating, screw terminal(s), LED indicator(s), overvoltage, undervoltage and voltage range protection.	PDF		



	Technical Specifications						
Part Number		<u>RL9836DC24-130V</u>	RL9836DC50-250V	RL9854AC100-300V	<u>RL9854AC45-135V</u>		
Input Voltage Range**		24-130 VDC	50-250 VDC	100-300 VAC	45-135 VAC single-phase with neutral		
Undervoltage		> 24VDC		> 45 VAC			
Voltage Range		24-130 VDC	50-250 VDC	100-300	VAC 45-135 VAC		
Hysteresis		4-20%					
Switching Voltage Capacity		250 VAC					
Life*	Electrical	To AC 15 at 1A, 230 VAC: Typ. 3 x 105 switching cycles					
Lile	Mechanical	> 30 x 10 ^s switching cycles					
Response Times		Infinite adjustable instantaneous, 2-30 s					
Power Consumption		Approx. 2W		Approx. 7VA			
Temperature		Operation: - 4 to 131 °F [-20 to 55 °C] Storage: - 13 to 140 °F [-25 to 60 °C] Relative air humidity: 93 % at 104 °F					
Mounting			DIN rail IEC/EN 60715				
Indicator LED		See Table 1 on following page					
Switching Delay			2-30s				
Weight (lb)		105 g					
Wire Size		AWG 24-12					
Tightening Torque		0.6 Nm			0.5 Nm		
Approvals	cULus, CE						

* Resistive load

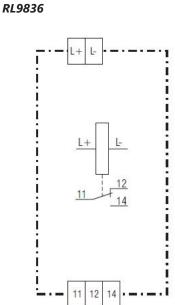
** Fusing is not required by code, but if fusing is used we recommend 2 Ampere MCL2 fuse between the phase monitor relay and the three phases.



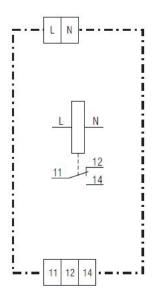
RL9836, RL9854 LED Indication

Table - LED Indication		
LED Status*	Indicator	
Green ON	Relay On	
Red >U	Relay On, when overvoltage	
Red <u< th=""><th>Relay On, when undervoltage</th></u<>	Relay On, when undervoltage	

Wiring Diagrams



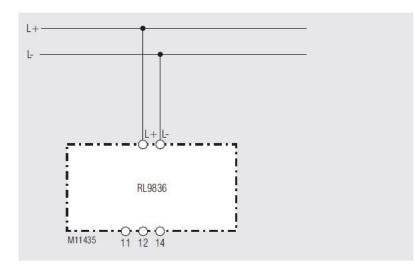
RL9854





Typical Connections

RL9836



RL9854

