

DOLD

Measuring Relays

Voltage Monitor Relays

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.



RL 9836



RL 9854

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

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	> DC 24 V	< DC 250 V
RL 9854	> AC 45 V	< AC 528 V



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Voltage Measuring Relays			
Part Number	Price	Description	Drawing Link
<u>RL9836DC24-130V</u>	\$120.00	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.	<u>PDF</u>
<u>RL9836DC50-250V</u>	\$120.00	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.	<u>PDF</u>
<u>RL9854AC100-300V</u>	\$110.00	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.	<u>PDF</u>
<u>RL9854AC45-135V</u>	\$110.00	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.	<u>PDF</u>

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Technical Specifications				
Part Number	<u>RL9836DC24-130V</u>	<u>RL9836DC50-250V</u>	<u>RL9854AC100-300V</u>	<u>RL9854AC45-135V</u>
Input Voltage Range**	DC 24-130V	DC 50-250V	AC 100-300V	AC 45-135V single-phase with neutral
Undervoltage	> DC 24V		> AC 45V	
Voltage Range	DC 24-130	DC 50-250	AC 100-300	AC 45-135
Hysteresis	4-20%			
Switching Voltage Capacity	AC 250V			
Life*	Electrical	To AC 15 at 1 A, AC 230 V: Typ. 3 x 10 ⁵ switching cycles		
	Mechanical	> 30 x 10 ⁶ switching cycles		
Response Times	Infinite adjustable instantaneous, 2-30 s			
Power Consumption	Approx. 2W		Approx. 7VA	
Temperature	Operation: - 4 to + 131 °F Storage: - 13 to + 140 °F 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.



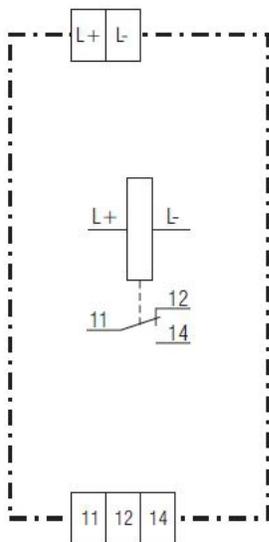
Voltage Monitor Relays

RL9836, RL9854 LED Indication

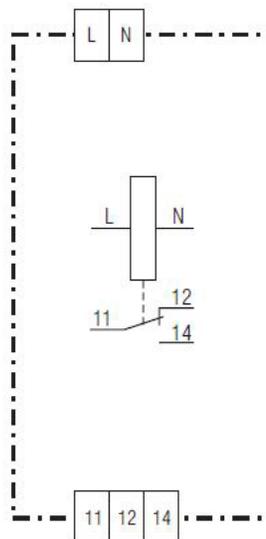
Table - LED Indication	
LED Status*	Indicator
Green ON	Relay On
Red >U	Relay On, when overvoltage
Red <U	Relay On, when undervoltage

Wiring Diagrams

RL9836



RL9854



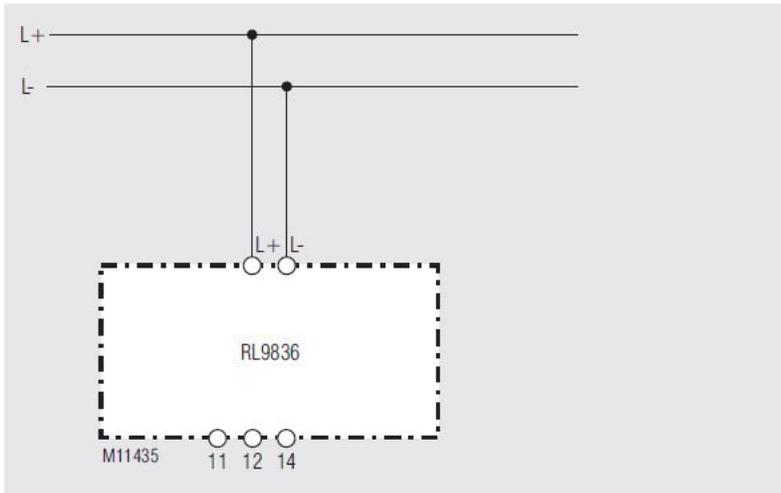


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Typical Connections

RL9836



RL9854

