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1. INTRODUCTION

This under / over voltage monitoring relay type MV53 is based on the ComatReleco ECO-Line (for direct mounting to TS 35 DIN rail). This device monitors AC under and over voltage. The alarm values can be set with two separate DIP switches in several steps. The monitoring input voltage also supplies the power for the circuit of the device, therefore no other external supply is needed for correct operation.

As an output, the MV53 has a relay with one change over contact for a maximum switching capability of 6A, 250V and a load of up to 1750VA.

To monitor the desired over voltage, V_{o1} , can be selected with a DIP switch in steps of +2,5% up to +17,5% (e.g. AC270V in the AC230V version, and AC135V in the AC115V version). There are seven different combinations possible. In the same way the under voltage value to monitor, V_{u1} , can be set with DIP switches. In this case in steps of -5% down to -35% (e.g. AC149,50V in the AC230V version and AC75V in the AC115V version).

When the monitored voltage is outside these set values, the relay drops out after the set delay time (t_{del}) has elapsed. The Alarm delay time can be set from 25msec to 2,5sec with a potentiometer. The output relay pulls in again after a minimum alarm reset time (t_r) when the voltage returns to within the set value parameters. There is a defined hysteresis for stable good condition.

The status condition is displayed by a bi colour LED, green indicates (ok) and red indicates if the monitored value is outside the selected values.

The device complies with the relevant directives and standards.

Technical specifications are subject to change without notice

2. ORDER DESIGNATION

ComatReleco Voltage monitoring relay **MV53/AC230V**
MV53/AC115V

Other Versions available on request.

Fo-61.01-D-401

Datei: MV53

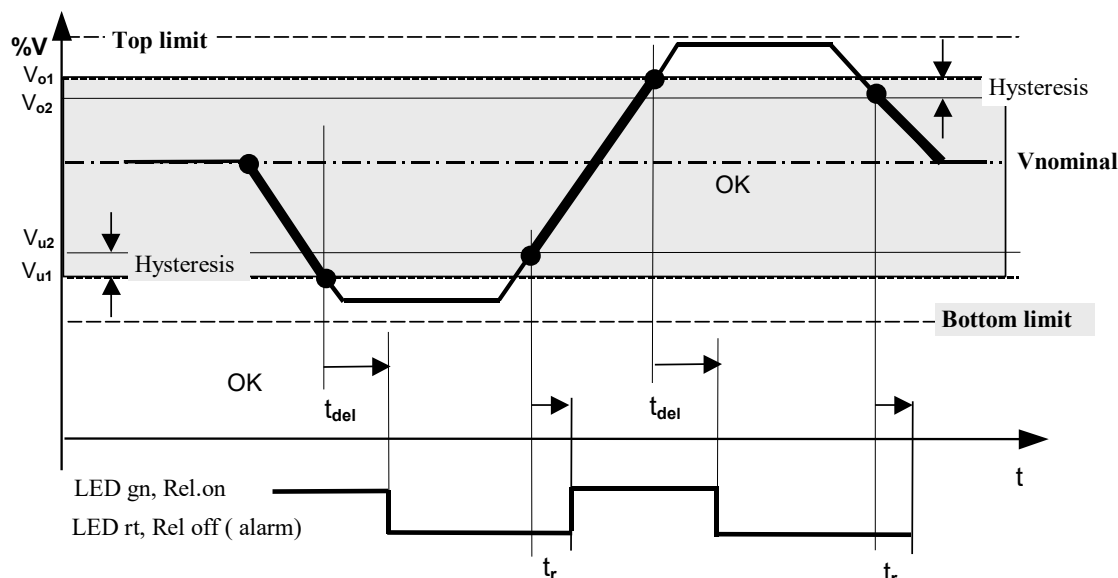
Gez.	Entw.	Gepr.	Reg.	Datum	Ae M	Ausg.	Blatt: 1
	UI			19.4.01		A	von: 5
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Data sheet MV53/AC115-230V, 50-60Hz AC- Voltage monitoring relay							
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3. FUNCTIONS

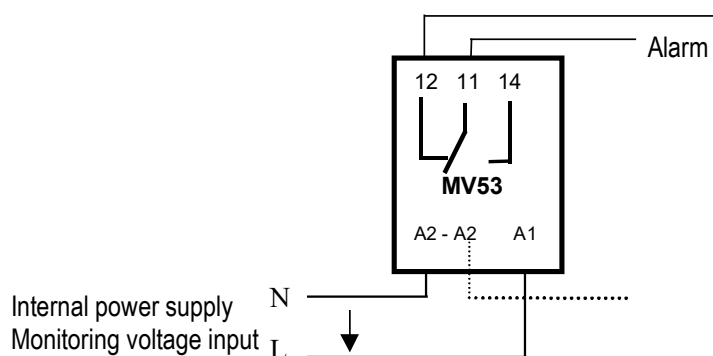
Concepts t_{del} : Alarm delay time t_r : Reset delay time
 V_{o1} : Threshold in +% from nominal value V_{o2} : Threshold for hysteresis
 V_{u1} : Threshold in -% from nominal value V_{u2} : Threshold for hysteresis
 Rel : Output relay
 $V_{nominal}$: e.g. AC230V and AC115V

Over voltage-under voltage monitoring response



The alarm condition is triggered when the maximal set value (V_{o1}), in +% from the V_{NOM} is exceeded or when the monitored voltage is lower than the minimal set value (V_{u1}) in -% from the V_{NOM} . The alarm condition is reset after a time t_r when the values V_{u2} or V_{o2} are reached as shown in the diagram. See "OPERATION" for possible values of V_{o1} and V_{u1} .

4. WIRING / CONNECTION



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Data sheet

MV53/AC115-230V, 50-60Hz

AC- Voltage monitoring relay

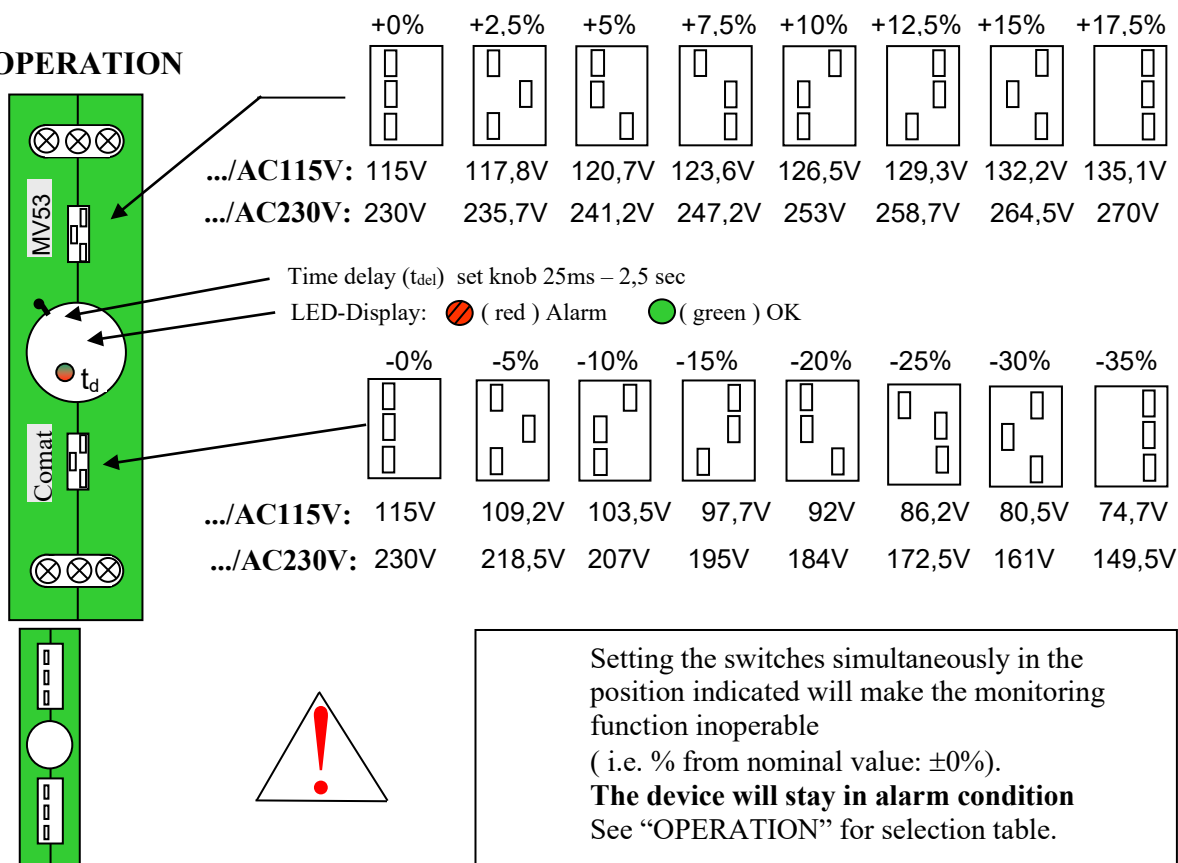
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Data sheet
MV53/AC115-230V, 50-60Hz
AC- Voltage monitoring relay

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7.

OPERATION



8.

STANDARDS / DIRECTIVES / CONFORMITY

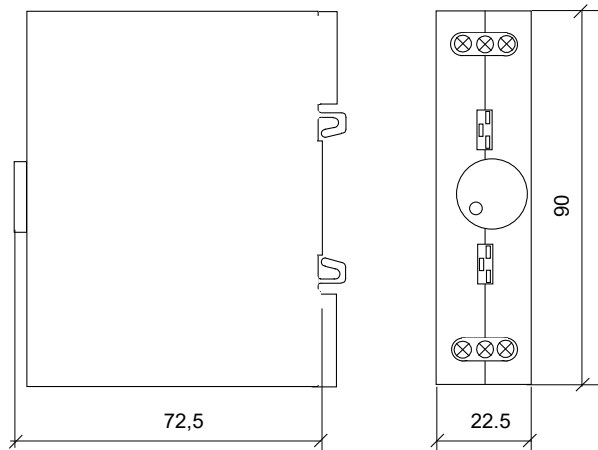
Vibration safety	IEC 571	Item 6.3
Immunity to interference	IEC 255-4	Appendix E, Class III
	EN 50082-2	EN 61000-4-2 Air: 8kV
	EN 61000-4-4	$\geq$ Level 3
	ENV 50140	10V/m
	ENV 50204	10V/m
	ENV 50141	10V
Interference emission	as per EN 50081-1	EN 55022 Class B
Low voltage	EN 60065	
Measuring relays	IEC 255-6	
Approvals	cURus in preparation	
Conformity, labelling	CE, cURus	

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9. CASE



10. APPLICATION

The MV53 voltage monitor is designed for the monitoring of single phase voltages. It should be installed in areas where unacceptable supply conditions would cause damage to plant and control systems.

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Datei: MV53

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	UI			19.4.01		A	von: 5
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