

XM-52M-VA500 - Voltage monitoring relay, 16 A, 2 C/O

Manual

Description

The XM-52M-VA500 is a 1-phase voltage monitoring relay with 3 measuring ranges:

- 10...50 VAC (terminal C-B1)
- 32...160 VAC (terminal C-B2)
- 100...500 VAC (terminal C-B3)

The relay is equipped with 2 C/O contacts. Via the output dipswitch the overvoltage (U_{max}) and undervoltage (U_{min}) are separately adjustable. Or both types have the same function.

The adjustable time delay is set between 1 s...10 s. U_{max} and U_{min} can be set within 20...100 % of the selected measuring range.

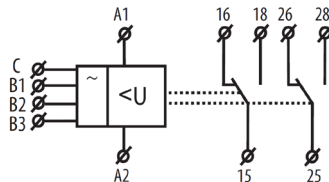
Layout

See back page.

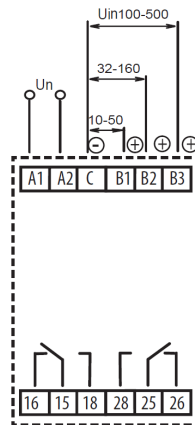
Technical information

Supply voltage	230 VAC
Measuring range	C-B1 10...50 VAC/DC C-B2 32...160 VAC/DC C-B3 100...500 VAC/DC
Contacts	2 C/O contacts
Rated current	16 A / AC1
Inrush current	30 A \leq 3 s
Adj. overvoltage (U_{max})	20...100 % of sel. range
Adj. undervoltage (U_{min})	20...100 % of sel. range
Ambient temperature	-20 °C...+55 °C

Connection diagram



Connection



Function

When energising the coil the relay will start voltage monitoring. The overvoltage (U_{max}) and undervoltage (U_{min}) are separately adjustable in % of controlled rated voltage range.

Selectable function 'Memory' which keeps the faulty state until pressing 'Reset'.

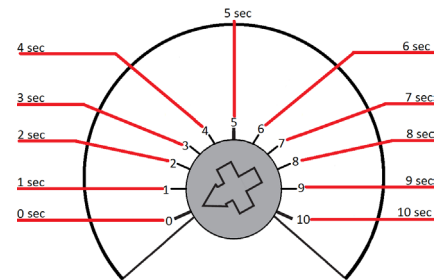
Dipswitch no 3: There is option of output relay state - separately switching for each level or parallel switching by overrunning any voltage level.

Dipswitch no 4: Adjusting of hysteresis, which is shown by passing from faulty to normal state.

The relay has protection against poling of DC voltage or incorrectly chooses AC-DC voltage (indicated by blinken U_n LED).

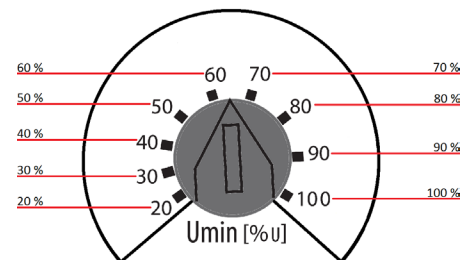
Time delay setting

The time delay can be set between 0...10 s.



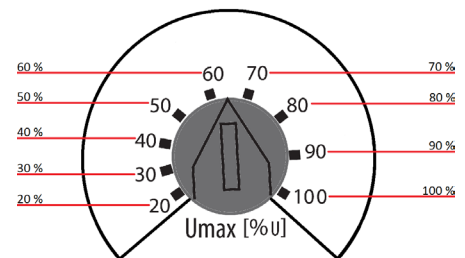
Undervoltage setting (U_{min})

The undervoltage (U_{min}) can be set within 20...100 % of the connected range.

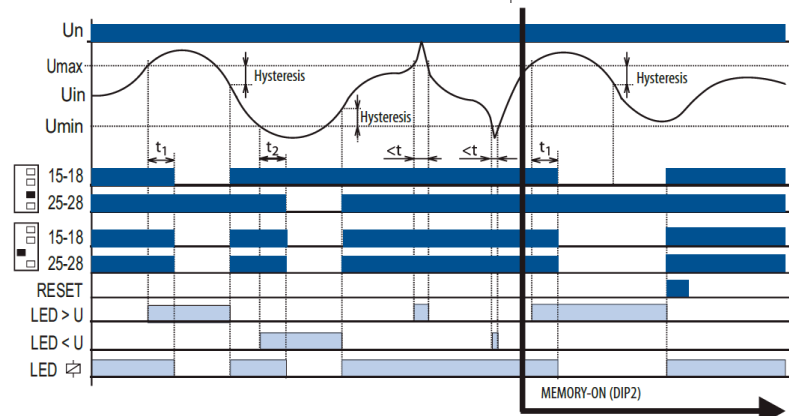


Example: if the range is 160 V, the overvoltage (U_{min}) can be set between 32 V (20 %) and 160 V (100 %).

Overvoltage setting (U_{max})



The overvoltage (U_{max}) can be set within 20...100 % of the connected range.



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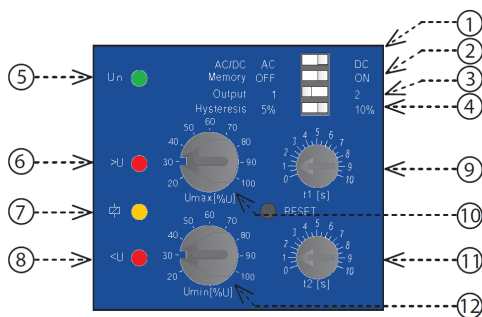
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Layout



1. Supply terminals
2. Measuring terminal
3. Output contacts



1. AC of DC voltage measuring
2. Memory function
3. Output indication (red LED)
4. Hysteresis from faulty to OK normal state
5. Supply indication (green LED)
6. Overvoltage indication LED
7. Output indication
8. Undervoltage indication LED
9. Time delay for U_{max} T1
10. Adjusting upper level U_{max}
11. Time delay for U_{min} T2
12. Adjusting upper level U_{min}

Installation

- Install and connect wiring according the identification on the terminals and connection diagram
- Do not reverse the polarity of the coil connection
- Relays can be mounted next to each other
- Warning! Never use silicon near the relays

Operation

- Before first operation; always apply voltage to supply and check correct operation
- Switching the load a few times before first use is advisable
- When the LED is green, coil voltage is indicated
- When the relay does not operate but coil voltage is present, coil polarity can be reversed
- Warning: Do not use the relay in locations with flammable gas, as the arc generated by switching could ignite the gas

Maintenance

- If the relay does not operate correctly, check the presence of the coil voltage by using a multimeter
- If the relay does not work after inspection, replace the relay by a similar model