

Superintend VR-16

Residual current relay for 5-wire network

Short operating manual



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1 Preface

This instruction describes briefly the operation and use of the user interface.

2 Menu selections

The device is in its basic mode when the current sensor is connected and power is switched on. Power is not supplied through the current sensor (Figure 1) or, when the current is below the set fault limit, the display shows sensor current (Figure2).



Figure 1 Basic mode.



Figure 2 Current below set limit in basic mode.

Go to menus from the basic mode by keeping M (Menu) button pressed down. When you keep pressing down the M button, you browse through menus at short delay intervals. Select a menu by releasing the M button when the desired menu is displayed.

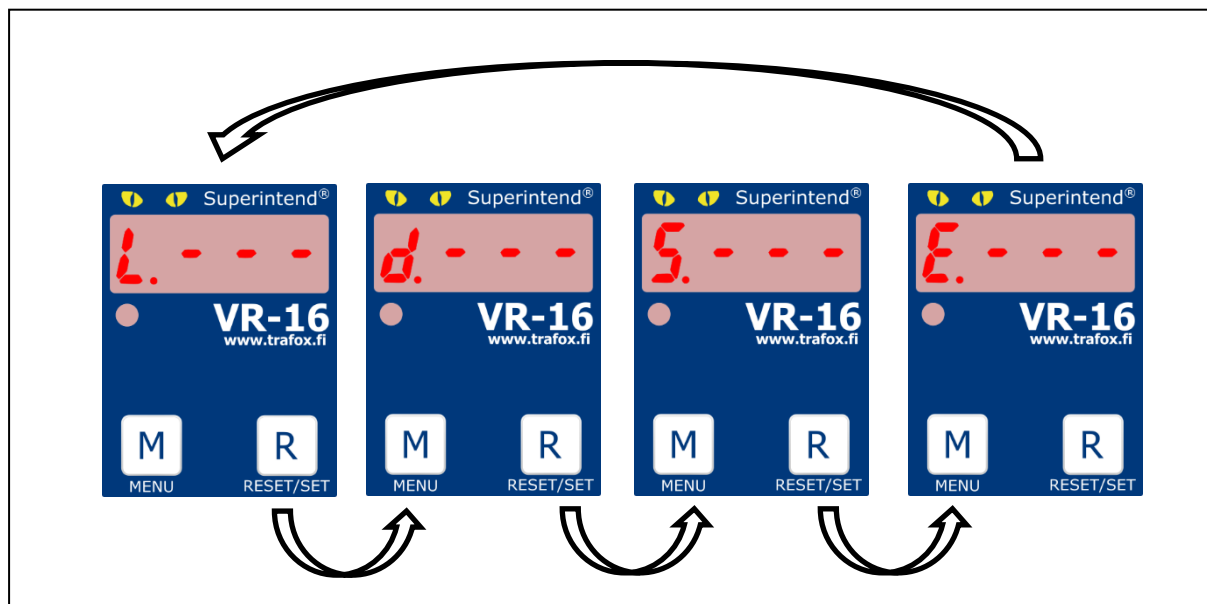


Figure 3 When the M (Menu) button is kept down, you browse between menus at a short delay interval. Select the menu by releasing the M (Menu) button.



2.1 Limit Menu (L)

Once Limit Menu is selected, the display shows the current set value. Go from one selection to another by pressing the M button briefly. Confirm your selection by pressing R (Reset / set) button for a long time. Once a selection is confirmed, you return to the basic mode. The limit value choices available are 30mA, 100mA, 300mA, 500mA, 1A, 3A or 10A (Figure 4).

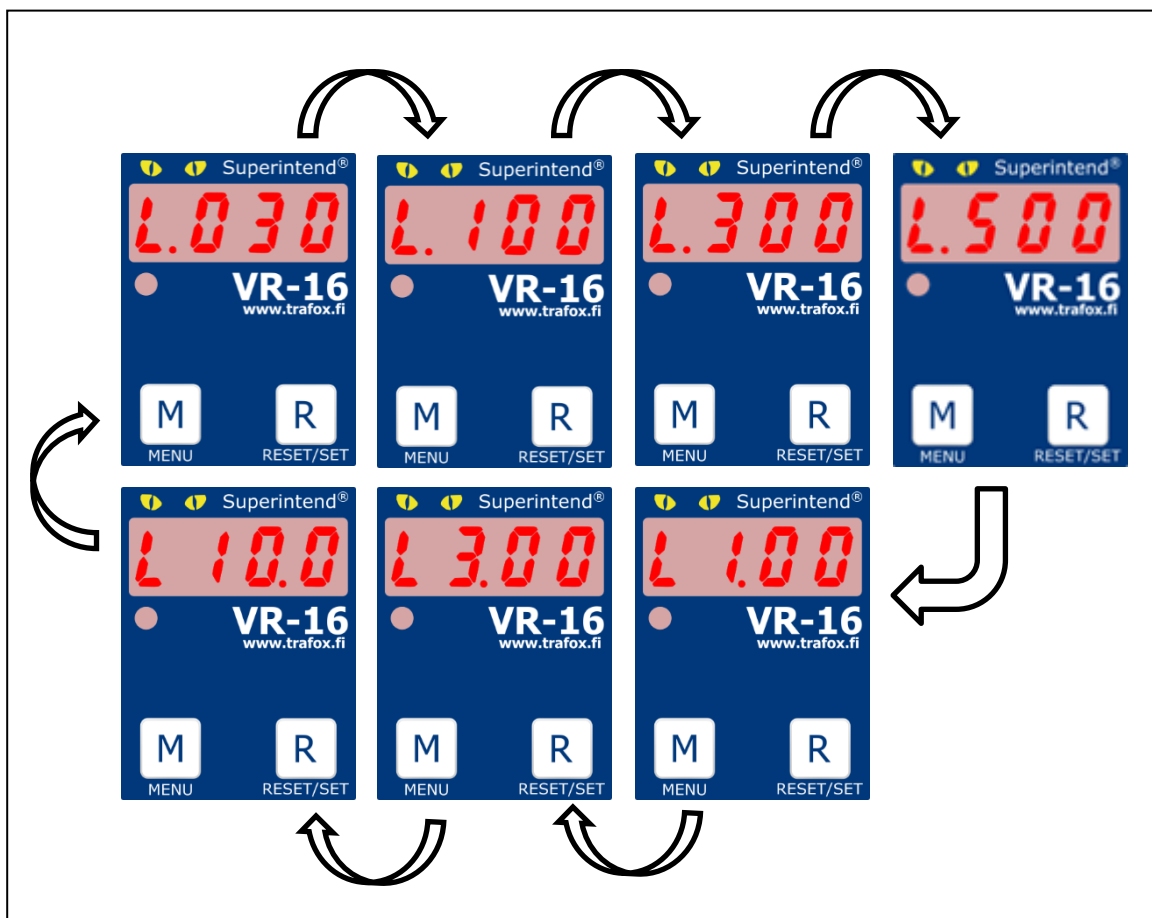


Figure 4 Selecting limit value with short presses of the M (Menu) button. Confirm your selection by pressing R (Reset / set) button for a long time.



2.2 Delay Menu (d)

Once Delay Menu is selected, the display shows the current set value. Go from one selection to another by pressing the M button briefly. Confirm your selection by pressing R (Reset / set) button for a long time. Once a selection is confirmed, you return to the basic mode. The delay choices available are 100ms, 500ms, 1s, 3s, 5s or 10s (Figure 5).

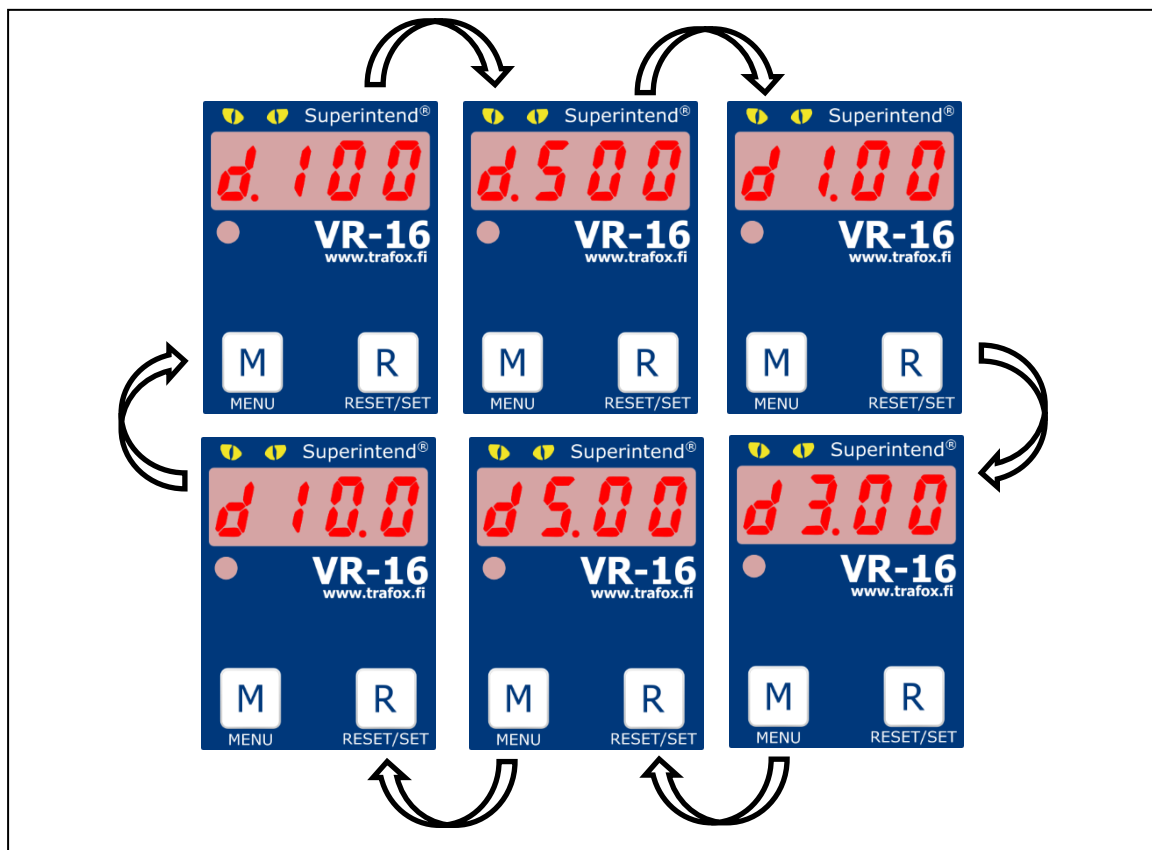


Figure 4 Selecting delay time with short presses of the M (Menu) button. Confirm your selection by pressing R (Reset / set) button for a long time.



2.3 Sensor Menu (S)

Once Sensor Menu is selected, the display shows the current set value. Go from one selection to another by pressing the M button briefly. Confirm your selection by pressing R (Reset / set) button for a long time. Once a selection is confirmed, you return to the basic mode. Sensor choices available are VMI25, VMI35, VMI60, VMI95, VMI130 or VMI200 (Figure 6).

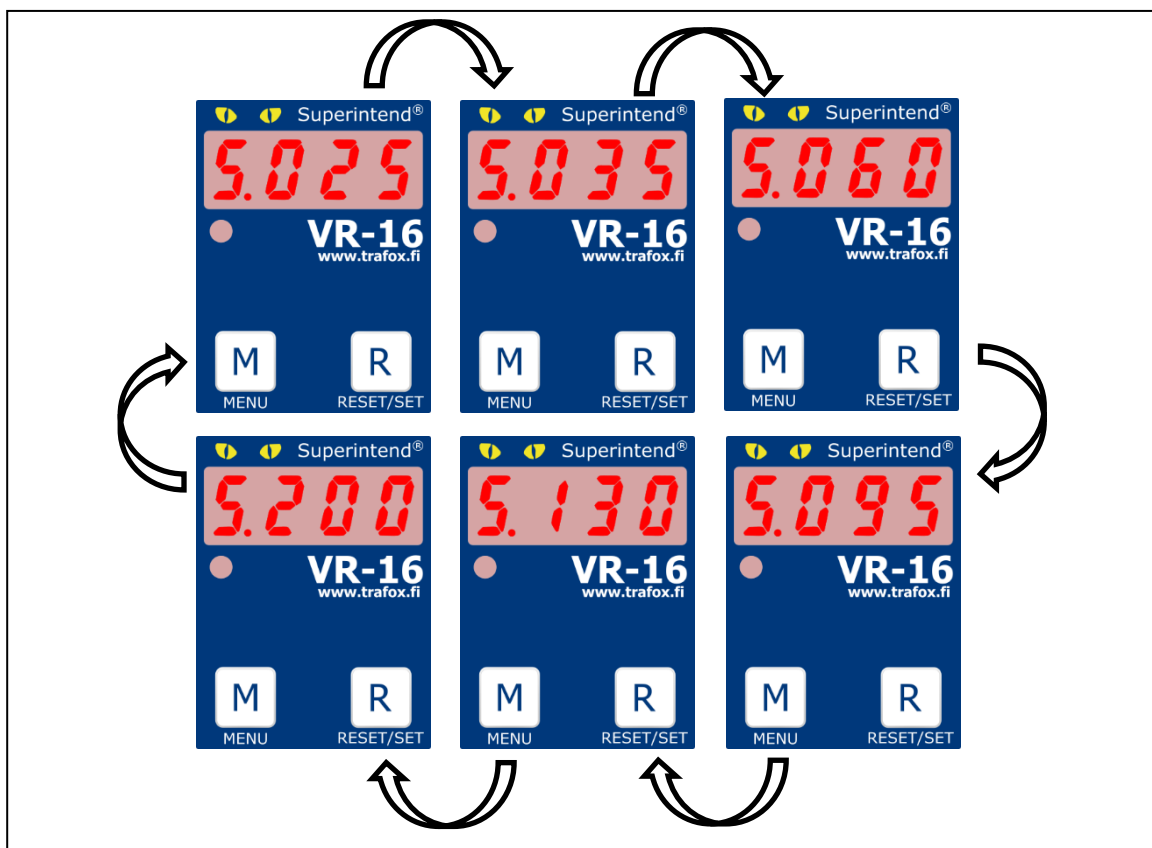


Figure 6 Selecting sensor with short presses of the M (Menu) button. Confirm your selection by pressing R (Reset / set) button for a long time.



2.4 Error Memory (E)

Once Error Memory is selected, the display shows the current set value. Go from one selection to another with short presses of the M button (Figure 7). Confirm your selection by pressing R (Reset / set) button for a long time. Once a selection is confirmed, you return to the basic mode. The selection allows you to choose whether the device will remember the error mode after power returns. ON mode means that the error mode is remembered when power returns even if it no longer is valid and OFF mode means that switching off power resets the fault mode if the fault is removed.

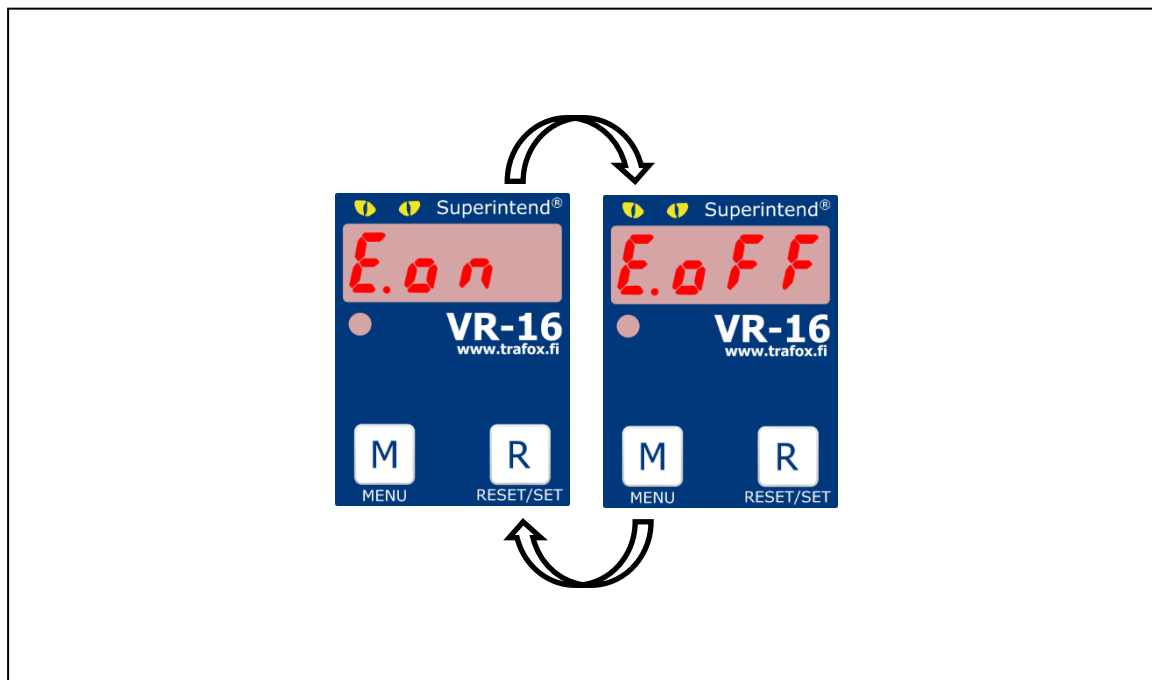


Figure 7 Selecting error memory ON / OFF with short presses of the M (Menu) button. Confirm your selection by pressing R (Reset / set) button for a long time.

3 Modes during operation

3.1 Normal operation

The device is in its basic mode when the current sensor is connected and power is switched on. Power is not supplied through the current sensor (Figure 8). When the current is below the fault limit, the display shows sensor current (Figure9). You can go from basic mode to Menu selection.





Figure 8 Basic mode.



Figure 9 Current below set limit in basic mode.

3.2 Alarm

Alarm mode is active when the current exceeds the set limit and the overrun lasts longer than the set delay. In alarm mode, the display is as shown in Figure 10. Alarm is indicated by the letter A and a blinking LED light. In alarm mode the relay is released. The value of measured current is 158mA.



Figure 10 Display in alarm mode

3.3 Warning

When the current exceeds the set current limit, the display will be as shown in Figure 11. Warning is indicated by the letter P and blinking LED light. The warning mode is active if the current exceeds the set limit but the overrun is shorter than the set delay. The value of measured current is 158mA.



Figure 11 Display in warning mode



3.4 Sensor fault

If the sensor is missing or the device cannot test the sensor for other reasons, the device will issue a fault notification. The display will be as shown in Figure 12. Fault is indicated by the letter F and a blinking LED light. In fault mode the relay is released.



Figure 12. Display indicates a sensor fault.

4 Acknowledging fault modes

Fault modes can be acknowledged by pressing the R (reset / set) button for a long time. Acknowledging is only possible if the fault mode has been removed.

The fault mode can also be acknowledged by using off the device's voltage for sufficiently long while the Error Memory setting is in OFF position.

