

Test unit

Type 853299

for cable monitoring devices types 8531 / -2 / -3

853299



Description

The test unit is installed in a well insulated housing for easier handling and can be connected to the terminals of the type 8531 cable monitoring unit by means of a cable and plug or else to the terminals of the type 8532 and 8533 cable monitoring units by means of the couplers that are supplied.

The test unit can be used for configurations with and without cable shield break monitoring, regarding of the action direction of the cable shield monitoring unit for warnings (earthing short circuit) or triggering (inner short circuit). The test unit allows the testing and setting of the trigger thresholds for »Earthing short circuit« and »Inner short circuit«.

Function

The cable monitoring unit must be switched off so that it is not live before connecting or plugging in the connecting plug.

The connections to the cable to be monitored must be separated for correct setting of the trigger thresholds.

The test unit can also be used when the cable to be monitored is connected (always use switch position type 853100 / 853200 / 853300). Take into consideration here that any cable defects will only be incorporated in the measuring results as a total resistance from the simulated defect and the existing defect. It is therefore extremely important to disconnect the cable to be monitored for correct setting of the threshold values.

The connections are therefore to be made as follows:

Type 8531

The blue wire with the blue plug to terminal »BE«.

The black wire with the green plug to terminal »M«.

The brown wire with the yellow plug to terminal »L«.

Types 8532 and 8533

Plug in the blue cable with the blue plug into the intermediate coupling and connect the other end to terminal

28 (BE).

Plug in the black cable with the green plug into the intermediate coupling and connect the other end to connect terminal 30 (shield).
Plug in the brown cable with the yellow plug into the intermediate coupling and connect the other end to terminal 32 (L).

Then connect the cable monitoring device to the voltage again (and to the auxiliary voltage as well as in the case of types 8532 and 8533).

First determine the type of cable monitoring unit before starting each test or adjustment and set the selector switch at the test unit.

Selector switch (if separated from the cable to be monitored)

to position 853100 / 853200 / 853300 for cable monitoring devices 853100 / 853200 / 853300 respectively (without a cable shield monitoring device)

For cable monitoring devices 853110, 853210 and 853310 (with cable shield monitoring device: Action direction

»Internal short circuit« = triggering) at position: 853110 / 853210 / 853310

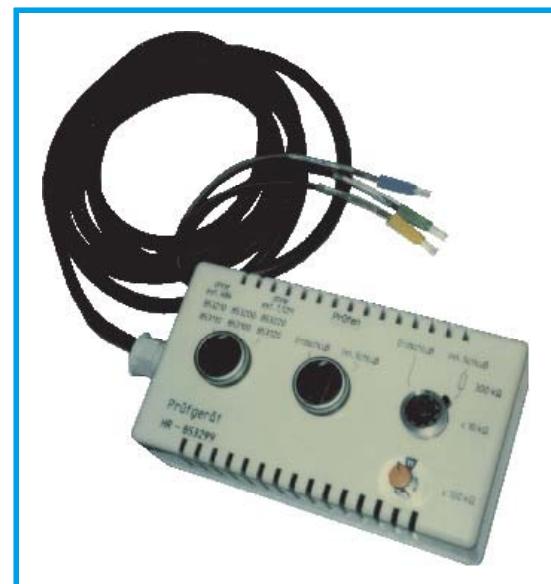
For cable monitoring devices 853120, 853220 and 853320 (with cable shield monitoring device: Action direction

»Earth short circuit« = warning) at position: 853120 / 853220 / 853320

Selector switch (with a completely connected cable - including any terminating resistors that are required): Always to position: 853100 / 853200 / 853300 (regardless of the type of device).

Setting the »Earth short circuit« trigger value:

First put the test switch into the »Earth short circuit« position to set the »Earth short circuit« trigger value (with a disconnected cable). A set insulation defect of 0 to 100 kOhm can be input with the potentiometer on the basis of the scale 1 - 10 (multiplication factor 10 kOhm). In addition, fixed resistances can be switched in series at steps 1 - 11, each of 100 kOhm, with the switch underneath. The resistance value at which the cable monitoring unit is to respond can be set with the aid of the potentiometer and the selector switch.



Technical data

Dimensions	WxHxD 190/110/95 mm
Housing	Plastic
Type of protection	IP 00 (protective insulation)
Connection	Cable skein H 07 RN-F 3 m long (see the text!)
Internal terminating resistance	0 kΩ, in position: 853100 / 853200 / 853300 68 kΩ, in position: 853110 / 853210 / 853310 1120 kΩ, in position: 853120 / 853220 / 853320
Fuses	3x (1.2 kV 0.5 A)
Test ranges	Position: 0 no test resistance switched in Position: »Earth short circuit«: continuously variable from 0 to 100 kΩ and 11 fixed resistances in steps of 100 kΩ can be switched in Total setting range: 1200 kΩ Position: »Inner short circuit«: Protective resistance from 300 kΩ fixed preswitching, extra 0 to 100 kΩ continuously variable and 11 fixed resistances in steps of 100 kΩ can be switched in Total setting range: 300 to 1500 kΩ

Ordering information

Type	Part No.
8532 99	510600

Accessories: 3 intermediate couplings for connection to type 8532 / type 8533 cable monitoring devices

After that, turn to the left the potentiometer on the front panel of the cable monitoring unit that is next to or below the LED for »Earthing short circuit« until the LED for »Earthing short circuit« no longer lights up, if it had lit up before.

Caution

Only use an insulated screwdriver for this adjustment work!

Once the LED for »Earthing short circuit« has gone out, slowly turn the potentiometer clockwise until the LED for »Earthing short circuit« lights up again.

Note

Each time, wait about 20 seconds after each minute change of setting to see whether the LED lights up, since the delay time of the

reporting device could otherwise give a false response that would result in an incorrect setting.

The trigger threshold is set when the LED operates.

Setting the »Internal short circuit« trigger value:

Set the selector switch at the test unit to the »Internal short circuit« position to set the »Internal short circuit« trigger value. Then continue as described above. Note in this case that for reasons of protection a fixed resistance of 300 kOhm is switched in series to prevent a short circuit being caused if the potentiometer or the switch are accidentally set to the »0« position. This resistance of 300 kOhm must be added to the resistance value that is set at the potentiometer and the switch.

Otherwise the desired trigger value is set as described above. On setting the potentiometer on the front panel of the cable monitoring unit that is next to or below the LED for »Internal short circuit«. The delay time for the reporting device is thus only around 2 seconds.

Note

The measurement of the shield voltage gives useful information on the state of the insulation of the cable at that moment. See also the voltage curves on the back of the brochure sheet for the cable monitoring device or, if available, the display for the type 8532.. and type 8533.. cable monitoring devices, who bar graph display shows not only the state of the insulation of the cable at that moment but also the trigger value that had been set.

