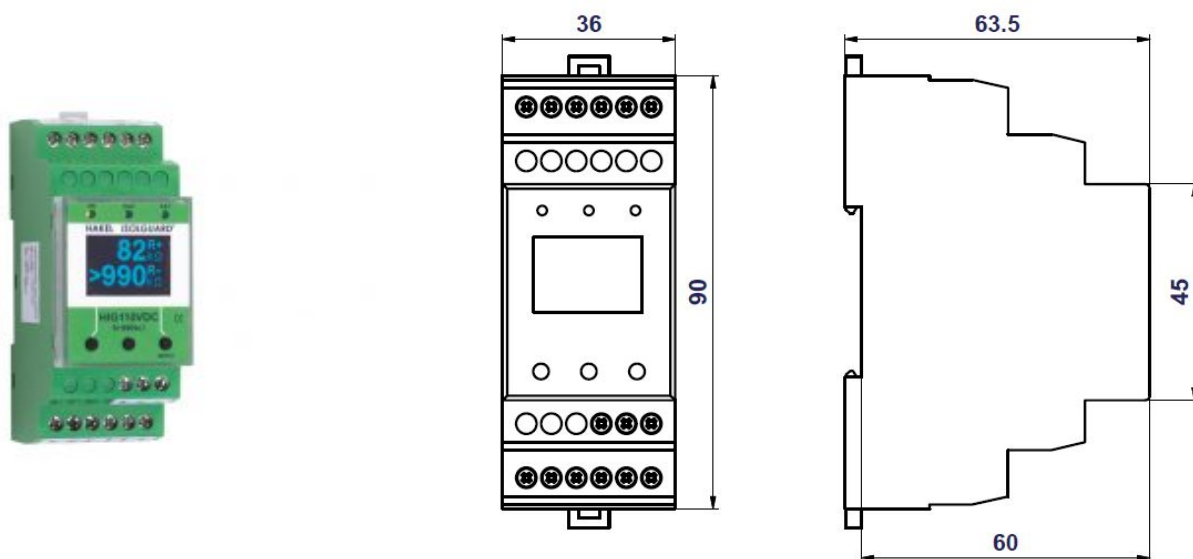


Insulation Monitoring Device



HIG110VDC

The insulation monitoring device ISOLGUARD HIG110VDC produced by HAKEL is designed **for monitoring the insulation status of direct current IT power supply systems with a nominal voltage of 110V DC**. The device continuously monitors the insulation state of the positive and negative output of an insulation power supply system against the base point. For stationary devices it is usually PE conductor.

The insulation monitoring device is equipped to display the numeric values of the measured insulation resistance. The measured resistance value of the positive and negative output of a controlled network is displayed on the device's screen. There are buttons for setting the parameters of the insulation monitoring device and signalling LEDs to display the status of the controlled system or the device itself.

It is possible to connect the insulation monitoring device to the panel MDS-D via RS485 busbar. The MDS-D panel displays the actual measured values and the actual insulation monitoring device setting.

HIG110VDC can communicate with the master computer via the RS485 busbar with the protocol derived from the PROFIBUS protocol.

Only one insulation monitoring device can be connected to the same ungrounded IT power supply system.

Basic characteristics

- The monitor for insulating resistance of DC systems with the nominal voltage 110 V DC
- Displaying the measured values of the positive and negative output of a controlled network on the device's screen
- Two signalling relays of the IMD status and status of monitored system
- Optional memory of the alarm called with the option to unblock with the button
- Connection to the RS485 busbar, insulation strength 2500 V against internal circuits and network circuits
- Option to set the critical values, hysteresis values and other parameters using the insulation monitoring device buttons
- Access to setting the insulation monitoring device by button can be locked, the insulation monitoring device is unlocked by a combination of buttons
- Module for assembly on the DIN rail 35 mm with the total width 2M (36 mm)

Typ

HIG110VDC

Maximum operating voltage of the monitored ungrounded IT power supply system	U_n	$80 \div 120 \text{ V DC}$
Power consumption	P	max. 2 VA
Internal impedance of the measuring input	Z_i	$> 200 \text{ k}\Omega$
Displayed value's range	R_{isol}	$5 \text{ k}\Omega \div 900 \text{ k}\Omega$
Measuring accuracy		$\pm 10\%$
Critical insulation resistance	R_{crit}	adjustable $5 \text{ k}\Omega \div 500 \text{ k}\Omega$
Insulation resistance hysteresis	R_{hyst}	adjustable $0 \div +100\% R_{crit}$
Delay in response of signalling	t_{ON}	adjustable from 0 to 60 sec, with a 1 sec step
Signalling relay KA1. Potential-free switching contact / Electric strength to the internal circuits and to the supply circuits		$250 \text{ V AC} / 1 \text{ A} / 3750 \text{ Vrms}$
Signalling relay KA2. Potential-free switching contact. Electric strength to the internal circuits and to the supply circuits		$250 \text{ V AC} / 1 \text{ A} / 3750 \text{ Vrms}$
Communication line: RS485 type MASTER-SLAVE, 9600 Bd, even count parity / Insulating strength to the internal circuits and to the network circuits		2500 Vrms
Degree of protection according to IEC 60529		IP20
Weight	m	110 g
Housing material		PA-UL94 V0
Method of assembly		DIN rail 35
Recommended section of the connected conductors	S	1 mm ²
Operating temperature	ϑ	$-10^\circ\text{C} \div +60^\circ\text{C}$
Atmospheric pressure		$86 \div 106 \text{ kPa}$
Operating position		any
External magnetic and electric field		according to IEC 61326-2-4
Overvoltage category / testing voltage		III, according to IEC 60664-1:2007
Pollution degree		2, according to IEC 60664-1:2007
Operational mode		permanent
Article number		
HIG110VDC		70 934

