



## HIG93/E/N24.1

- The HIG91, HIG92, HIG93, and HIG94 series are a series of insulation monitoring devices for industrial isolated systems (IT systems).
- The maximum operating voltage of the IT system is 275 V AC. This voltage can be increased up to 6 kV when using coupling devices from the TL series.
- IMD with one  $R_{an}$  error level (HIG91, HIG92 series) or monitors with two error levels (HIG93, HIG94 series) are available.
- As standard, the IMD measure  $R_f$  in the range of 5 kΩ to 900 kΩ (HIG91, HIG93 series), alternatively in the range of 200 kΩ to 5 MΩ (HIG92, HIG94). Special IMDs are also available for different measuring ranges of insulation resistance.
- IMDs are equipped with digital processing of the measured signal, which offers the user numerical information about the measured insulation resistance.
- IMDs are designed with independent power supply. That means that these insulation monitors can be powered from a different system than the one they measure. This has the significant effect that the IMDs are able to measure even de-energized system.
- The power supply of the device is AC as standard, for a nominal voltage of 230 V to 110 V / 50 Hz. However, versions with a 24 V DC supply are also available.
- All IMDs are equipped with a digital bus, which allows information to be transmitted to the master system. For signaling of the IMD status, panels from the MDS-D series can also be used (variant with RS485).

Type		HIG93/E/N24.1
Monitored IT power supply system type according to IEC 61557-8		AC
Measuring range of insulation resistance	$R_f$	5 ÷ 900 kΩ
Adjustable range of critical insulation resistance	$R_{an}$	5 ÷ 300 kΩ
Number of insulation resistance fault levels ( $R_{an}$ )		2
Rated voltage of monitored IT system (AC)	$U_n$	275 V
IMD power supply		From independent power source
Nominal supply voltage AC	$U_s$	10 ÷ 26 V
Nominal supply voltage DC	$U_s$	11 ÷ 38 V
Power consumption	P	5 VA
Measuring voltage	$U_m$	12 V
Measuring current	$I_m$	< 0.6 mA
Measuring input's internal impedance	$Z_i$	> 2 000 kΩ
Measuring accuracy		± 10 %
Electrical strength against internal circuits		3 750 V
Equipped with display		Yes (OLED technology)
Supported module of distant signalisation (MDS)		None
Communication interface for user		Ethernet bus, Webserver
Communication protocol		MODBUS TCP
External control inputs		Test start
Housing material		Polyamid PA6, UL94 V-0
Degree of protection of front panel		IP40
Degree of protection except the front panel		IP20
Operating temperature	θ	-10 ÷ 60 °C

Type		HIG93/E/N24.1
Protection class according to IEC 61140		II
Recommended cross-section of connected conductors	S	1 mm <sup>2</sup>
Installation		On DIN rail 35 mm
Modular width		3.5 TE
Use for traction		No
Operating position		Any
Operation type		Permanent
<b>Designed according to standards</b>		
Insulation monitoring devices for IT systems		IEC 61557-8:2014
Equipment for testing, measuring or monitoring of protective measures		IEC 61557-1:2007
Insulation coordination for equipment within low-voltage systems		IEC 60664-1:2007
<b>Application standards</b>		
Low-voltage electrical installations – Protection against electric shock		HD 60364-4-41:2017
<b>Ordering, packaging and additional data</b>		
Mass	m	217 g
Customs tariff no.		90303370
EAN code		8590681188262
<b>Art. number</b>		<b>70 924/N24.1</b>



The link in the QR code leads to the online presentation of the **HIG93/E/N24.1**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit [www.hakil.com](http://www.hakil.com)



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## Application wiring diagram (installation) 1/1

