



HIG91/E

- 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 k Ω to 900 k Ω (HIG91, HIG93 series), alternatively in the range of 200 k Ω to 5 M Ω (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	HIG91/E	
Monitored IT power supply system type according to IEC 61557-8	AC	
Measuring range of insulation resistance	R_f	5 ÷ 900 k Ω
Adjustable range of critical insulation resistance	R_{an}	5 ÷ 300 k Ω
Number of insulation resistance fault levels (R_{an})		1
Rated voltage of monitored IT system (AC)	U_n	275 V
IMD power supply		From measured IT system, From independent power source
Nominal supply voltage AC	U_s	90 ÷ 265 V
Nominal supply voltage DC	U_s	90 ÷ 370 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 k Ω
Measuring accuracy		± 10 %
Electrical strength against internal circuits		3 750 V
Equipped with display		Yes (OLED technology)
Supported module of distant signalisation (MDS)		MDS10
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

Type		HIG91/E
Operating temperature	θ	-10 ÷ 60 °C
Protection class according to IEC 61140		II
Recommended cross-section of connected conductors	S	1 mm ²
Installation		On DIN rail 35 mm
Modular width		3.5 TE
Use for traction		No
Operating position		Any
Operation type		Permanent
Designed according to standards		
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
Application standards		
Low-voltage electrical installations – Protection against electric shock		HD 60364-4-41:2017
Ordering, packaging and additional data		
Mass	m	206 g
Mass (including the packaging)	m	234 g
Packaging dimensions (H x W x D)		74 x 112 x 73 mm
Packaging value	V	0.61 dm ³
Customs tariff no.		90303370
EAN code		8590681709207
Art. number		70 920



The link in the QR code leads to the online presentation of the HIG91/E. 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

