



HIG93T

- HIG93T are a series of insulation monitor devices (IMDs) for insulated systems (IT systems) in rolling stock.
- The IMDs are designed according to the EN 50155 standard and are prepared for measuring insulation resistance in trains, trams, and trolleybuses.

- The IMDs are usually applied with a range of TL * T coupling devices, which allow monitoring of the usual operating voltages of 3 x 400 V or 3 x 500 V.

Type		HIG93T
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 measured IT system, From independent power source
Nominal supply voltage AC	U_s	90 ÷ 265 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 remote monitoring panels (MDS)		MDS-D, MDS-DELTA
Communication interface for user		RS485 bus
Communication protocol		ISOLGUARD, PROFIBUS
Housing material		Polyamid PA6, UL94 V-0
External control inputs		Test start
Degree of protection of front panel		IP40
Degree of protection except the front panel		IP20
Operating temperature	θ	-25 ÷ 60 °C
Protection class according to IEC 61140		II
Recommended cross-section of connecting wires	S	1 mm ²
Installation		On DIN rail 35 mm
Modular width		2 TE
Width		36 mm
Height		90 mm
Depth		63.5 mm
Use for traction		Yes

Type		HIG93T
Operating position		Any
Operation type		Permanent
Designed according to standards		
Equipment for testing, measuring or monitoring of protective measures		IEC 61557-1:2007
Insulation monitoring devices for IT systems		IEC 61557-8:2014
Insulation coordination for equipment within low-voltage systems		IEC 60664-1:2007
Railway applications – Rolling stock – Electronic equipment		EN 50155:2017
Railway applications – Electromagnetic compatibility		EN 50121-3-2:2016
Railway applications – Rolling stock equipment – Shock and vibration tests		IEC 61373:2010
Railway applications – Fire protection on railway vehicles		EN 45545-2:2013
Application standards		
Low-voltage electrical installations – Protection against electric shock		HD 60364-4-41:2017
Ordering, packaging and additional data		
Mass	m	173 g
Mass (including the packaging)	m	197 g
Packaging dimensions (H x W x D)		60 x 113 x 73 mm
Packaging value	V	0.5 dm ³
Customs tariff no.		90303370
EAN code		8590681110591
Art. number		70 927



The link in the QR code leads to the online presentation of the **HIG93T**.

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.hakel.com



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Application wiring diagram (installation) 1/1

