



## HIG93T/24L.1

- 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  $3 \times 400 \, \text{V}$  or  $3 \times 500 \, \text{V}$ .

Туре		HIG93T/24L.1
Monitored IT power supply system type according to IEC 61557-8		AC
Measuring range of insulation resistance	$R_{F}$	0.1 ÷ 90 kΩ
Adjustable range of critical insulation resistance	R <sub>an</sub>	0.1 ÷ 90 kΩ
Number of insulation resistance fault levels (R <sub>an</sub> )		2
Rated voltage of monitored IT system (AC)	U <sub>n</sub>	275 V
IMD power supply		From independent power source
Nominal supply voltage AC	$U_s$	10 ÷ 26 V
Nominal supply voltage DC	U <sub>s</sub>	11 ÷ 38 V
Power consumption	Р	5 VA
Measuring voltage	$U_{m}$	12 V
Measuring current	I <sub>m</sub>	< 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		No display
Supported module of distant signalisation (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	9	-25 ÷ 60 °C
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		2 TE
Use for traction		Yes
		Any
Operating position		Ally

## **Insulation Monitoring Devices for AC systems**



Туре		HIG93T/24L.1
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 <sup>3</sup>
Customs tariff no.		90303370
EAN code		8590681188293
Art. number		70 927/24L.1

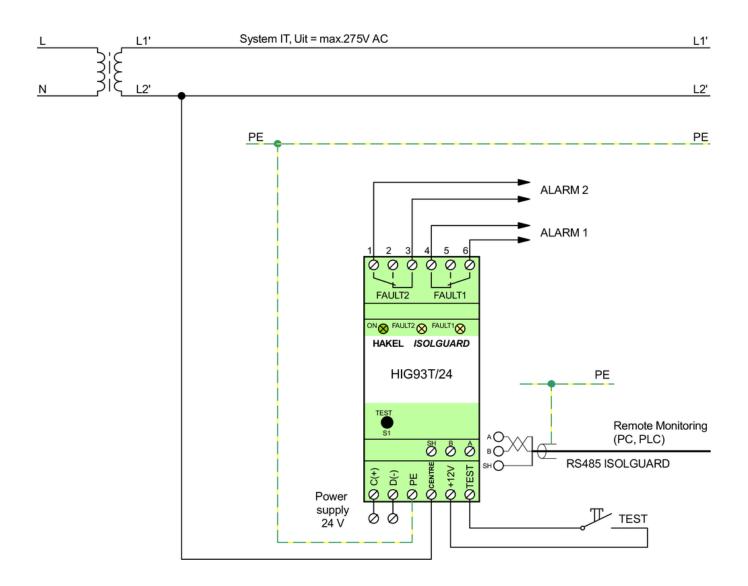


**The link in the QR code** leads to the online presentation of the **HIG93T/24L.1**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit **www.hakel.com** 





## Application wiring diagram (installation) 1/2





## Application wiring diagram (installation) 2/2

