



HIG93T/L

- 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/L |
|--|----------|--|
| 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_{an} | 0.1 ÷ 90 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 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 | θ | -25 ÷ 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 | | 2 TE |
| Use for traction | | Yes |
| 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

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|--|--|--------------------|
| 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 | | 8590681120279 |
| Art. number | | 70 927/L |



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

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



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Application wiring diagram (installation) 1/1

