

HIG72VDC

- Insulation monitoring devices HIG24VDC(-L), HIG48VDC(-L), HIG72VDC(-L), HIG110VDC(-L) are designed for the monitoring of the insulation status of DC IT systems with nominal voltage 24 V DC, 48 V DC, or 72 V DC or 110 V DC.
- The device continuously monitors the insulation status of both branches of the isolated IT system against a reference point. For stationary equipment this is usually the PE conductor, for mobile equipment it is the vehicle frame.
- If the insulation condition in the positive branch R+ or negative branch R- is faulty, this condition is signalled by setting relay KA1/KA2. The fault condition is also indicated by LEDs on the front panel.

- These devices are equipped with a display for showing the currently measured values. The display, together with the buttons is also used to set the device.
- HIG24VDC(-L)/T, HIG48VDC(-L)/T, HIG72VDC(-L), HIG110VDC(-L)/T are designed for railway use (EN 50155) to monitor the insulation condition of DC IT systems.

| Type | | HIG72VDC |
|--|-------------|--------------------------------------|
| Monitored IT power supply system type according to IEC 61557-8 | | DC |
| Measuring range of insulation resistance | R_F | $5 \div 990 \text{ k}\Omega$ |
| Adjustable range of critical insulation resistance | R_{an} | $5 \div 500 \text{ k}\Omega$ |
| Number of insulation resistance fault levels (R_{an}) | | 1 |
| Rated voltage of monitored IT system (DC) | U_n | 72 V |
| Nominal supply voltage DC | U_s | $55 \div 90 \text{ V}$ |
| IMD power supply | | From measured IT system |
| Power consumption | P | 2 VA |
| Measuring input's internal impedance | Z_i | $> 120 \text{ k}\Omega$ |
| Internal DC resistance | R_i | $> 120 \text{ k}\Omega$ |
| Measuring accuracy | | $\pm 10 \%$ |
| 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 |
| External control inputs | | Test start, Deblocking function |
| Housing material | | Polyamid PA6, UL94 V-0 |
| Electrical strength against internal circuits | | 3 750 V |
| Degree of protection of front panel | | IP40 |
| Degree of protection except the front panel | | IP20 |
| Operating temperature | ϑ | $-25 \div 70 \text{ }^\circ\text{C}$ |
| Storage temperature | | $-40 \div 70 \text{ }^\circ\text{C}$ |
| Protection class according to IEC 61140 | | II |
| Recommended cross-section of connected conductors | S | 1 mm^2 |
| Installation | | On DIN rail 35 mm |

| Type | | HIG72VDC |
|--|---|----------------------|
| Modular width | | 2 TE |
| Recommended back-up fuse | | 6 A/gG |
| 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 |
| Railway applications – Rolling stock – Electronic equipment | | EN 50155:2017 |
| Railway applications – Rolling stock equipment – Shock and vibration tests | | IEC 61373:2010 |
| Railway applications – Fire protection on railway vehicles | | EN 45545-2:2013 |
| Railway applications – Electromagnetic compatibility | | EN 50121-3-2:2016 |
| Application standards | | |
| Low-voltage electrical installations – Protection against electric shock | | HD 60364-4-41:2017 |
| Ordering, packaging and additional data | | |
| Mass | m | 124 g |
| Mass (including the packaging) | m | 138 g |
| Packaging dimensions (H x W x D) | | 45 x 102 x 74 mm |
| Packaging value | V | 0.34 dm ³ |
| Customs tariff no. | | 90303370 |
| EAN code | | 8590681124239 |
| Art. number | | 70 942 |

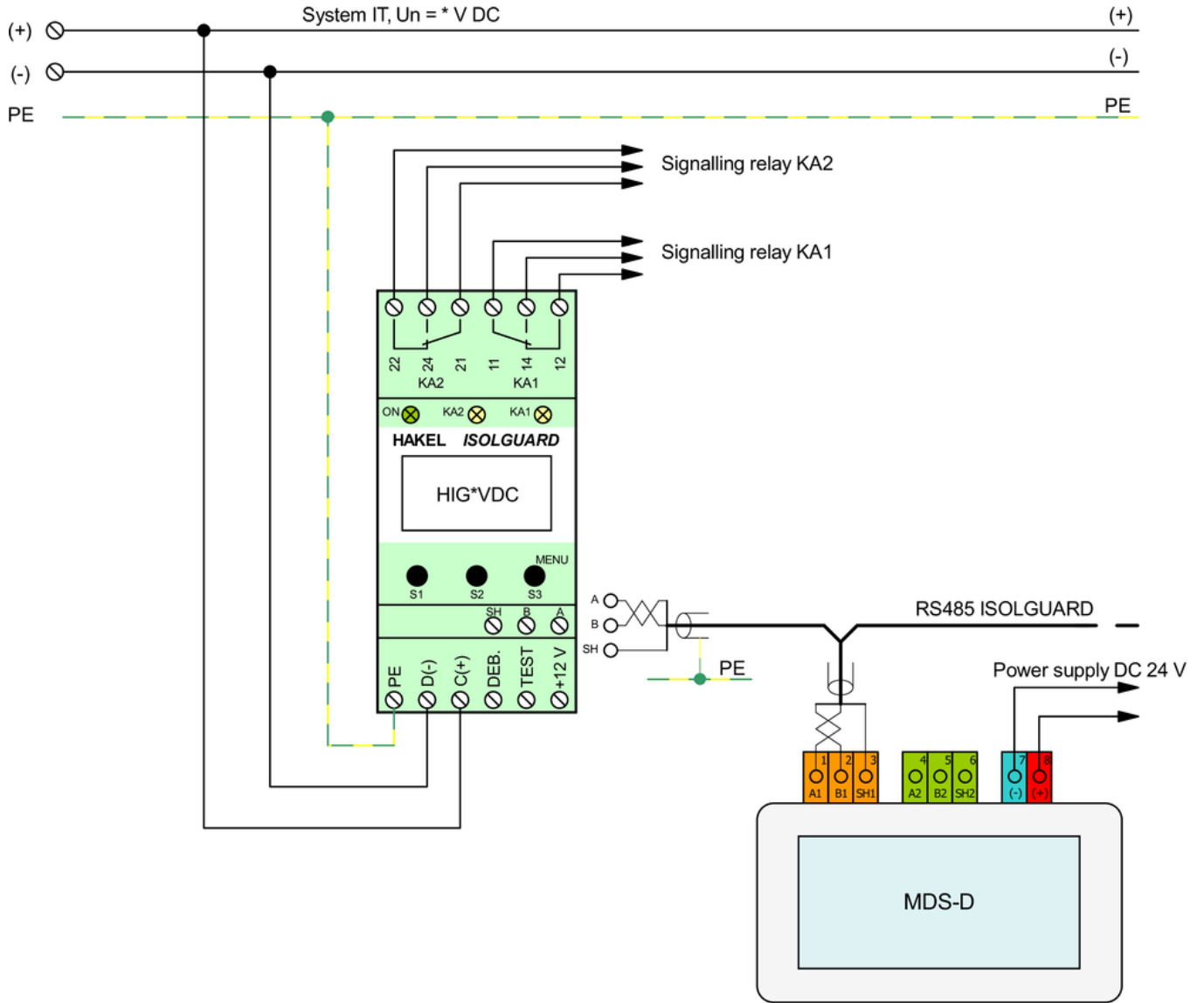


The link in the QR code leads to the online presentation of the **HIG72VDC**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit www.hakil.com



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Application wiring diagram (installation) 1/2



Application wiring diagram (installation) 2/2

