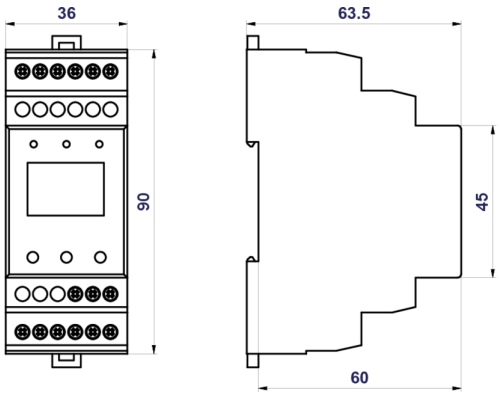
hakel®
Hz in Hearts



HIG48VDC

- 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		HIG48VDC
Monitored IT power supply system type according to IEC 61557-8		DC
Measuring range of insulation resistance	R_F	5 ÷ 990 kΩ
Adjustable range of critical insulation resistance	R_{an}	5 ÷ 500 kΩ
Number of insulation resistance fault levels (R_{an})		1
Rated voltage of monitored IT system (DC)	U_n	48 V
Nominal supply voltage DC	U_s	32 ÷ 60 V
IMD power supply		From measured IT system
Power consumption	P	2 VA
Measuring input's internal impedance	Z_i	> 120 kΩ
Internal DC resistance	R_i	> 120 kΩ
Measuring accuracy		± 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 ÷ 70 °C
Storage temperature		-40 ÷ 70 °C
Protection class according to IEC 61140		II
Recommended cross-section of connected conductors	S	1 mm^2
Installation		On DIN rail 35 mm

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Type		HIG48VDC
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		8590681709351
Art. number		**70 935**

The link in the QR code leads to the online presentation of the **HIG48VDC**.
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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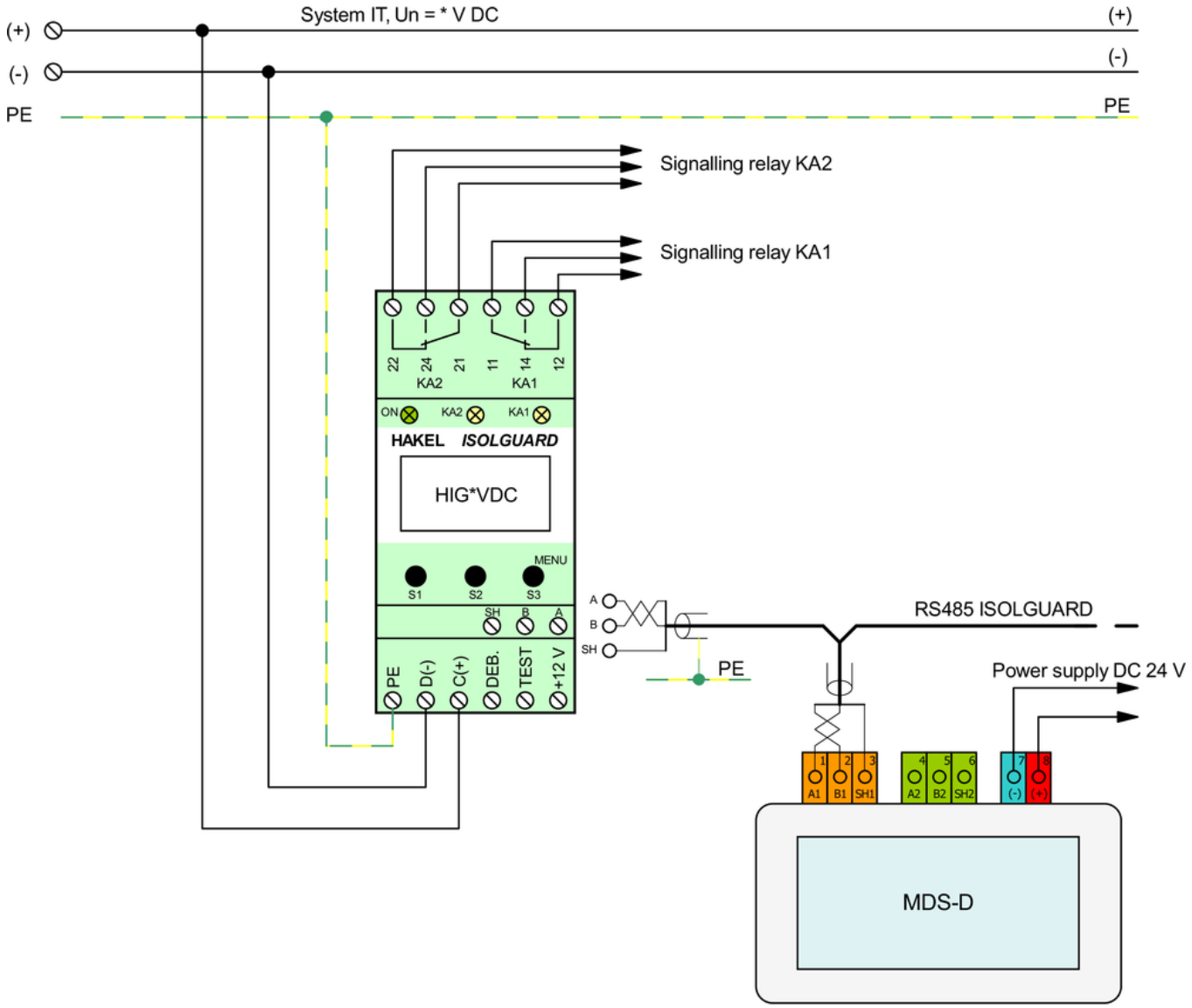
Application wiring diagram (installation) 1/2



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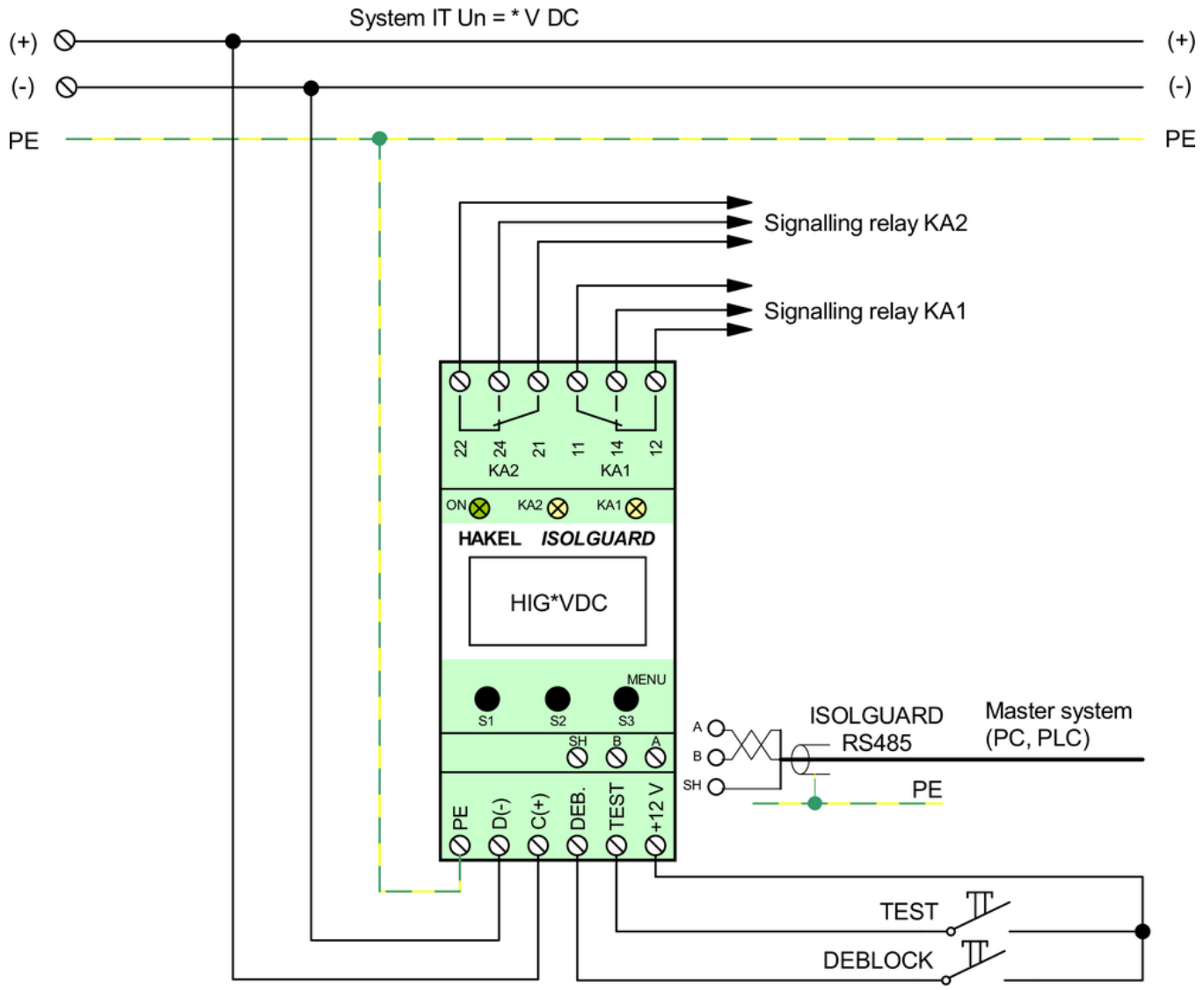
Application wiring diagram (installation) 2/2



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