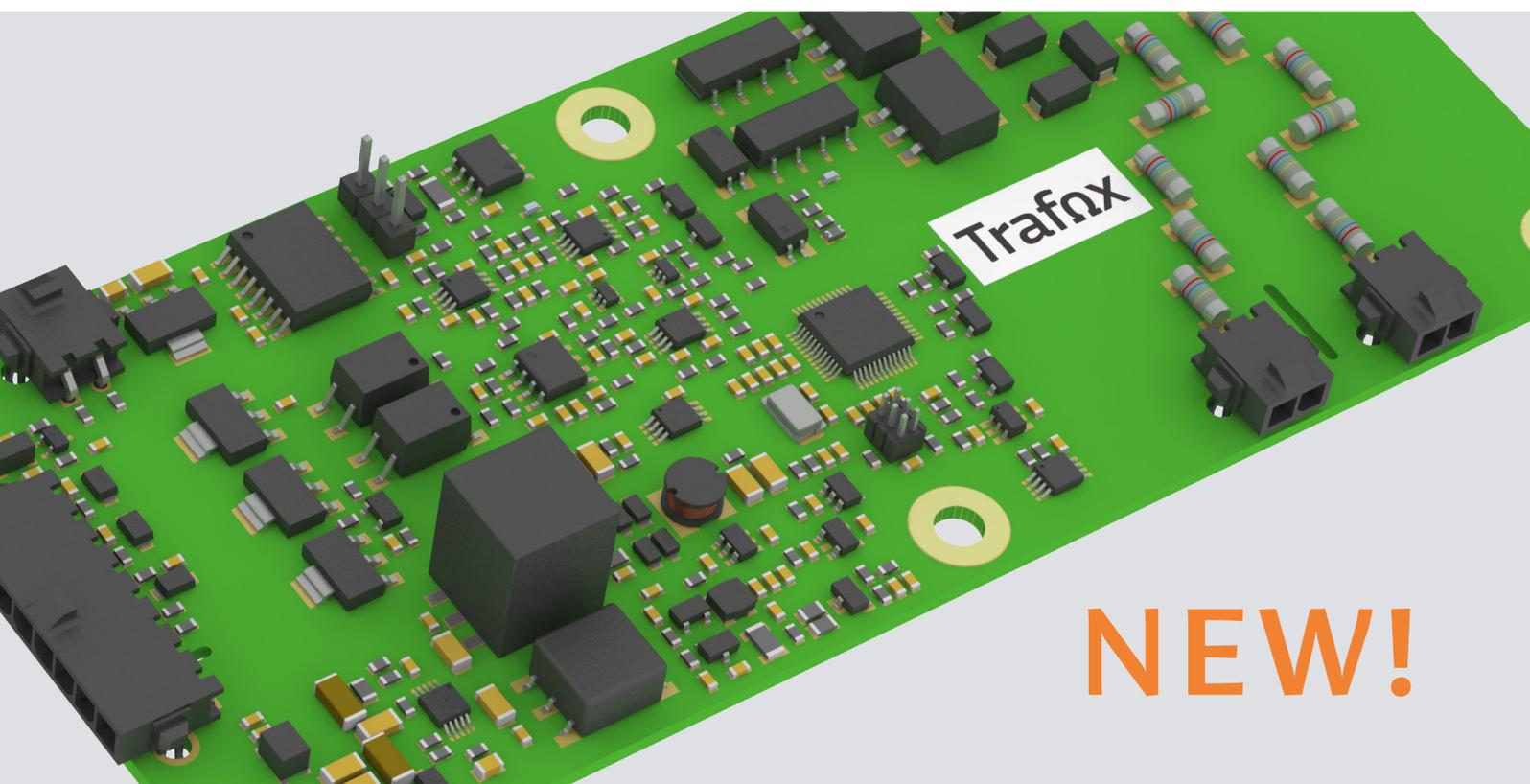


Trafox Superintend[®]

IM-07DCCT_24 FOR EV INSTALLATIONS.

IM-07DCCT.CCS_24 FOR CCS CHARGING SYSTEM.

IM-07DCCT.MCS_24 FOR MCS CHARGING SYSTEM.



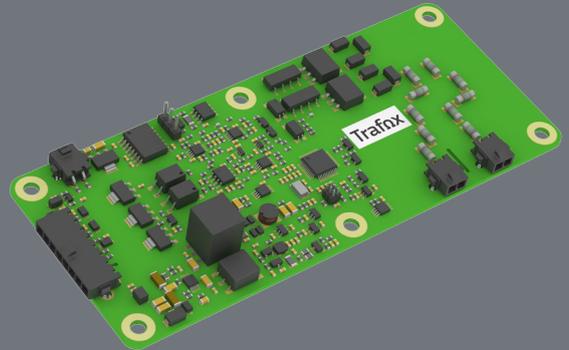
NEW!

Electric
Vehicles

IMD Insulation
Monitoring device

Insulation Monitoring device IM-07DCCT for Electric vehicles and charging stations

NEW!



IM-07DCCT for EV installations
 IM-07DCCT.CCS for CCS charging system.
 IM-07DCCT.MCS for MCS charging system.

- Measurement method: pulse
- For voltages up to 1250 VDC
- Monitoring of system voltage
- Short circuit proof and galvanically isolated outputs for system status
 - system OK or alarm
 - indication of insulation resistance with PWM signal
- CAN bus interface
- Disconnection functionality of HV connectors.

Monitored circuit

DC Voltage range 1250V

Auxiliary supply voltage

DC supply voltage 24 VDC

Monitoring functions

Insulation resistance between HV circuit and earth

Connection of the earth wires

System voltage level

Self-test

Outputs

Status output

- High side (external pull-down resistor required)
- High = system ok, insulation resistance above alarm level
- Low = alarm situation (insulation resistance below alarm level, system fault, earth wire disconnected, system undervoltage or supply voltage disconnected)

PWM output

- Low side (external pull-up resistor required)
- High side (external pull-down resistor required)
- Indication of the measured insulation resistance and possible fault conditions

CAN bus interface

Outputs are short circuit proof and galvanically isolated from the HV side

Alarm parameters (set at factory or with the CAN bus interface)

Insulation resistance response value R_{an} 50k Ω ...1M Ω

Insulation resistance response value hysteresis 25 %

Undervoltage detection threshold OFF / 50...500V

Averaging factor 1...10

Measuring specifications

Measuring range 10k Ω ...600k Ω

Measuring voltage U_M \pm 35V

System leakage capacitance C_e (nominal measurement specifications) 30 μ F

Other details

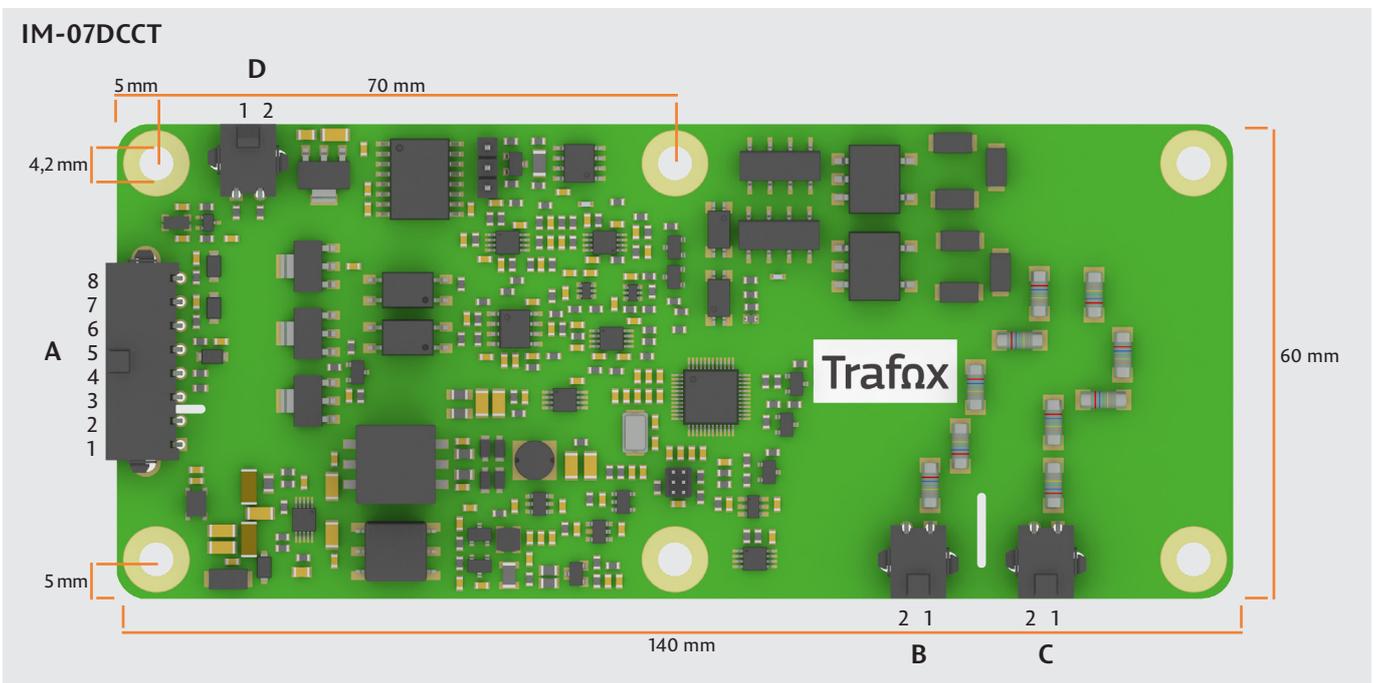
Operating temperature	-40...+70°C
Operating humidity (max.)	95% without condensation
Mounting	M4 metal screws
Maximum dimensions - Height	17mm
Maximum dimensions - Width	60mm
Maximum dimensions - Length	140mm
Weight	63g

Standards

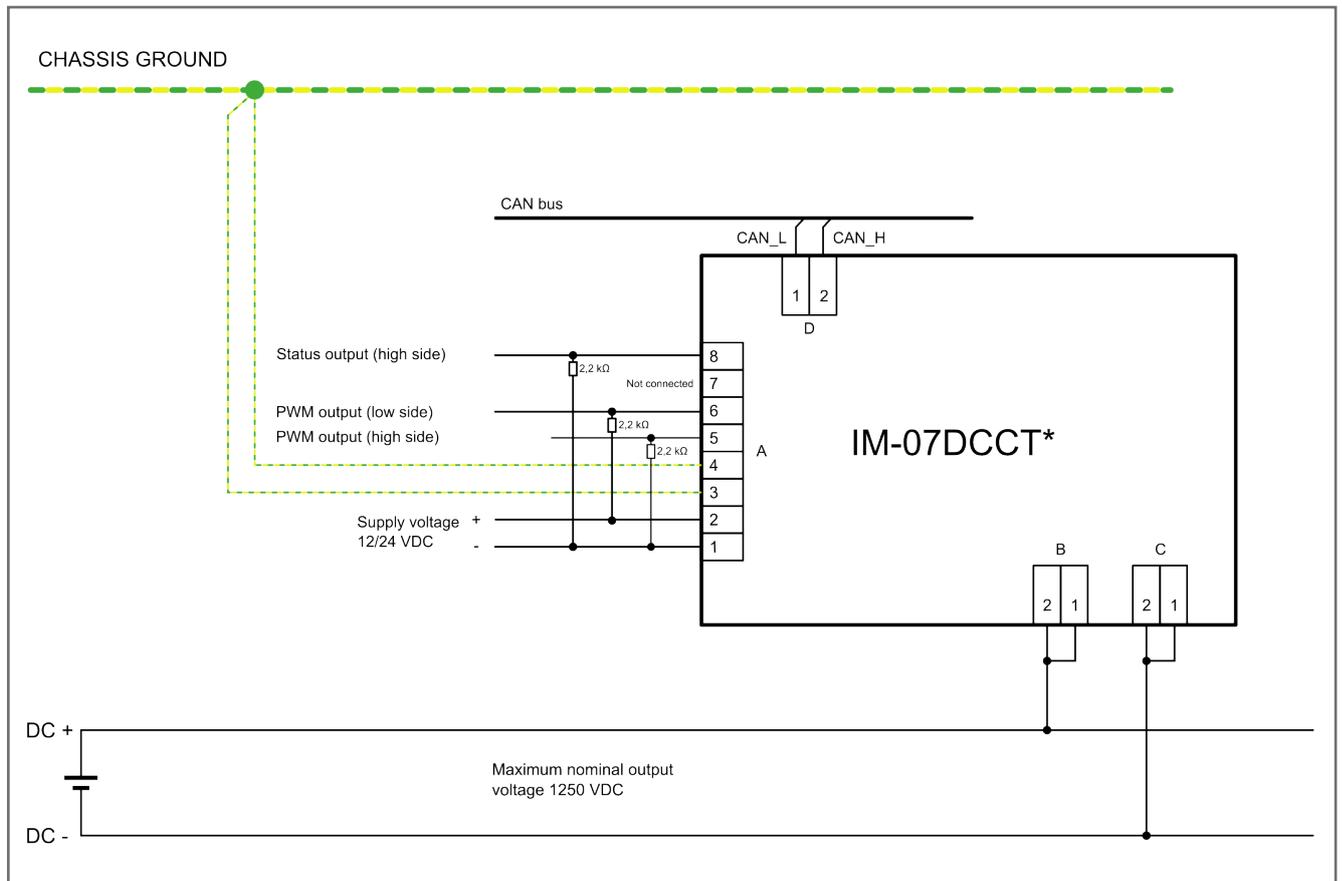
Measurements	IEC 61851-23-3 IEC 61557-8:2014 (requires alarm indicator and test button implemented at the customer's installation)
Safety	IEC 61010-1:2010 (3rd Edition), IEC 60664-1
EMC	IEC 61326-2-4, ISO 10605
Electrically propelled road vehicles - Safety specifications	ISO 6469-3:2021
Road vehicles – Environmental conditions and testing for electrical and electronic equipment	ISO 16750-1, ISO 16750-2, ISO 16750-3
Environmental tests	IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-30, IEC 60068-2-38, IEC 60068-2-64

Connectors

A	PCB connector type	TE Connectivity Micro MATE-N-LOK 2-1445088-8
	Crimp contacts	8 x TE Connectivity Micro MATE-N-LOK 1-794606-1
	Housing for crimp contacts	TE Connectivity Micro MATE-N-LOK 1445022-8
	Pin 1	Chassis ground / electronic ground
	Pin 2	Supply voltage
	Pin 3	Chassis ground
	Pin 4	Chassis ground (must be separate wire)
	Pin 5	PWM output (high side)
	Pin 6	PWM output (low side)
	Pin 7	not connected
	Pin 8	Status output (high side)
B	PCB connector type	TE Connectivity Micro MATE-N-LOK 2-1445088-2
	Crimp contacts	2 x TE Connectivity Micro MATE-N-LOK 1-794606-1
	Housing for crimp contacts	TE Connectivity Micro MATE-N-LOK 1445022-2
	Pin 1	HV line +
	Pin 2	HV line +
C	PCB connector type	TE Connectivity Micro MATE-N-LOK 2-1445088-2
	Crimp contacts	2 x TE Connectivity Micro MATE-N-LOK 1-794606-1
	Housing for crimp contacts	TE Connectivity Micro MATE-N-LOK 1445022-2
	Pin 1	HV line -
	Pin 2	HV line -
D	PCB connector type	TE Connectivity Micro MATE-N-LOK 2-1445088-2
	Crimp contacts	2 x TE Connectivity Micro MATE-N-LOK 1-794606-1
	Housing for crimp contacts	TE Connectivity Micro MATE-N-LOK 1445022-2
	Pin 1	CAN_L
	Pin 2	CAN_H



Insulation surveillance system IM-07DCCT* for electric vehicles and charging stations



Muuntosähkö

Trafox is a brand of Muuntosähkö Oy. We develop, manufacture and customise high-quality transformers, chokes, filters and Trafox Superintend® monitoring devices for a large number of applications.

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