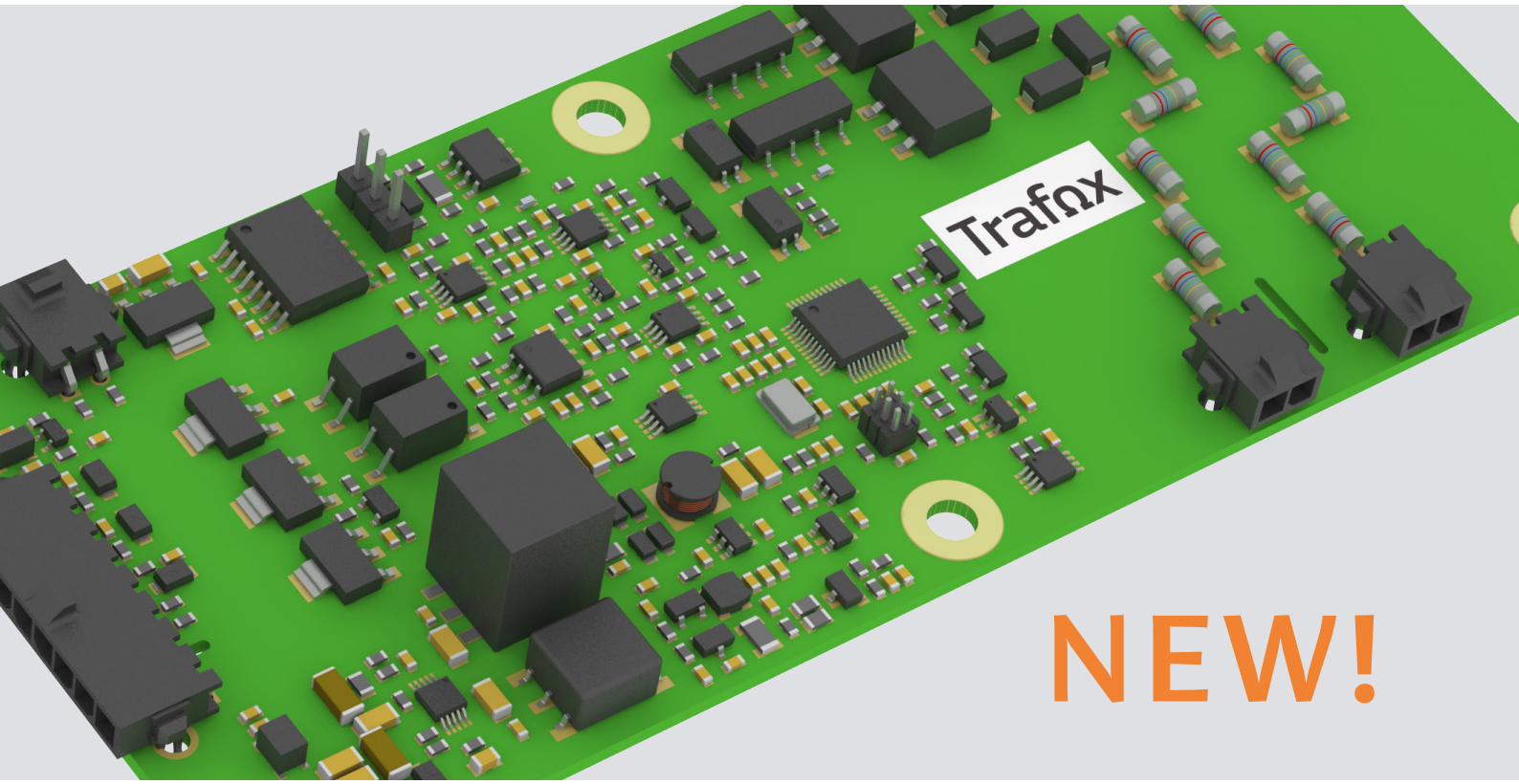
Trafox Superintend®

IM-07DCCT_12 AND IM-07DCCT_24
FOR CCS CHARGING SYSTEM.

IM-07DCCT.MCS_12 AND IM-07DCCT.MCS_24
FOR MCS CHARGING SYSTEM.



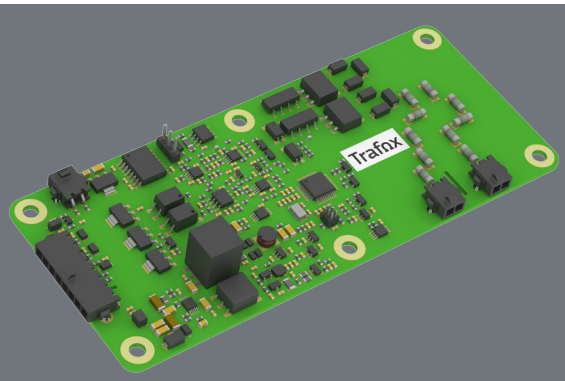
Electric Vehicles | IMD Insulation Monitoring device

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

TRAFOX SUPERINTEND®

NEW!

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



- Available later this year!
- 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
Frequency range	DC, 10...500Hz

Auxiliary supply voltage

DC supply voltage	12 VDC (IM-07DCCT_12 and IM-07DCCT.MCS_12) 24 VDC (IM-07DCCT_24 and IM-07DCCT.MCS_24)

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}	50kΩ...1MΩ
Insulation resistance response value hysteresis	25 %
Undervoltage detection threshold	OFF / 50...500V
Averaging factor	1...10

Measuring specifications

Measuring range	10kΩ...600kΩ
Measuring voltage U_M	±35V
System leakage capacitance C_e (nominal measurement specifications)	30µF

Other details

Operating temperature	-40...+85°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

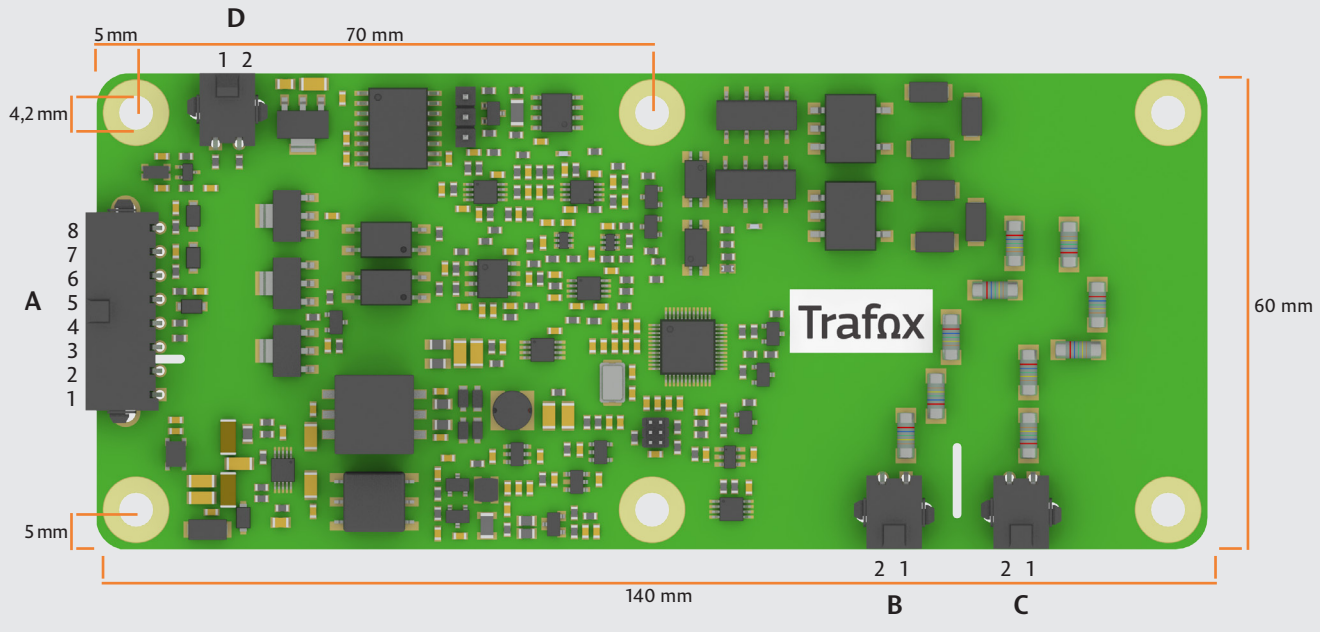
Standards

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

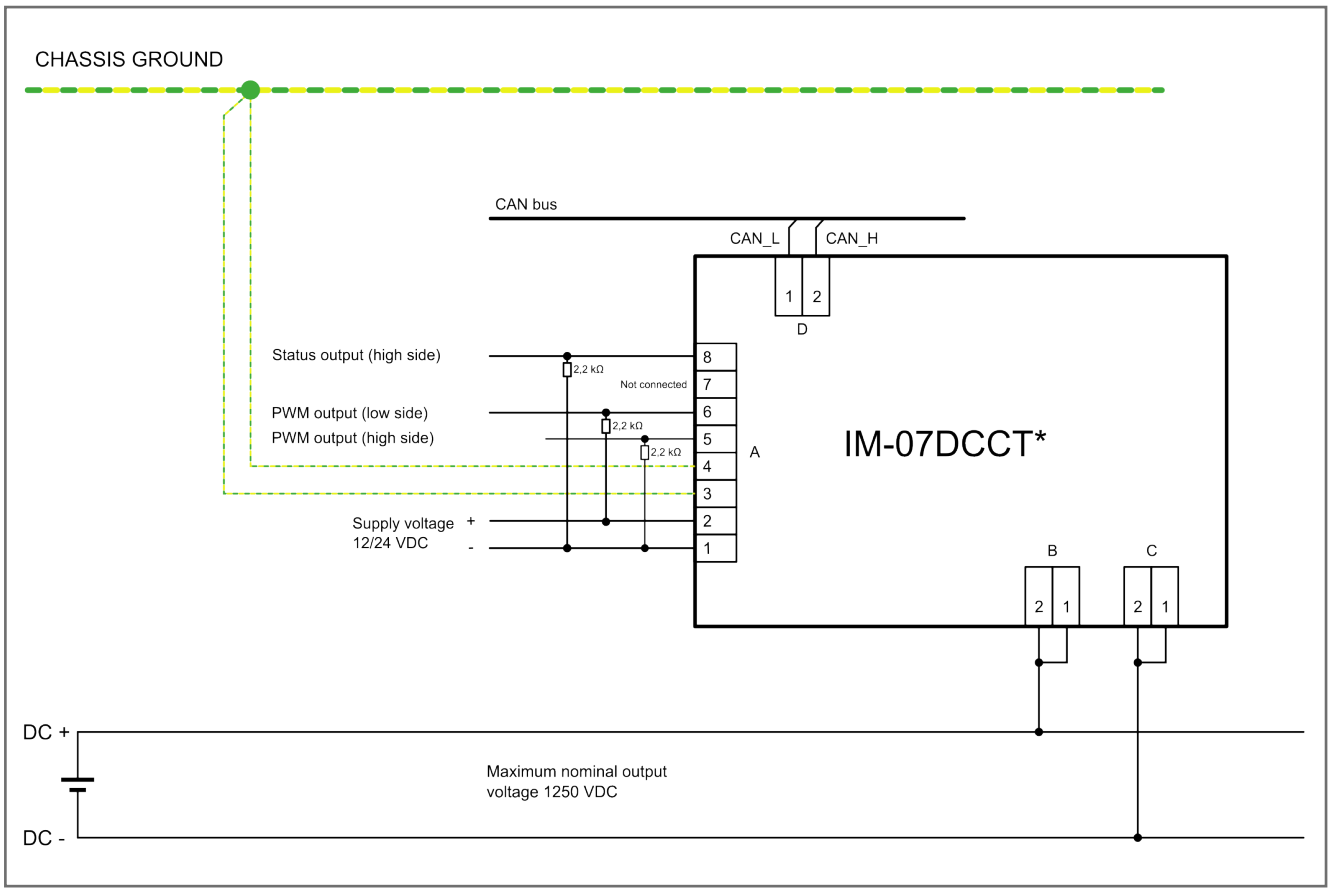
A	**PCB connector type**	TE Connectivity Micro MATE-N-LOK 2-1445088-8
	Crimp contacts	8 x TE Connectivity Micro MATE-N-LOK 1-794606-1
	Housing for crimp contacts	TE Connectivity Micro MATE-N-LOK 1445022-8
	Pin 1	Chassis ground / electronic ground
	Pin 2	Supply voltage
	Pin 3	Chassis ground
	Pin 4	Chassis 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

IM-07DCCT



TRAFOX SUPERINTEND® / IMD / TYPE IM-07DCCT

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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CERTIFIED ISO 9001

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