

Extended Surge Protection for Sensors with RS485

To increase the reliability and service life of IMT Technology products, the electronic circuits have been developed with highly effective surge protection components.

Herewith we confirm the successful extended surge test for sensors manufactured by IMT Technology as described below.

This document applies to the following products:

- All sensors of Si-RS485 series
- Tm-RS485
- Ta-ext-RS485

Test Description: Surge on power supply lines	Surge Voltage	Test Passed
Test criteria for CE conformity (as per IEC 61000-4-5) Power supply input +24 VDC, 0 V Pulse: 1.2/50 µsec, source impedance: 2 Ohm Sequence: 5 positive and 5 negative, repetition time: 60 sec. Differential mode: Coupling between +24 VDC and GND	500 V 1000 V	✓
IMT Technology's extended test criteria Sequence: 5 positive and 5 negative Repetition time: 30 sec.	2000 V 3000 V	✓

Test Description: Surge on RS485 bus line	Surge Voltage	Test Passed
Test criteria for CE conformity (as per IEC 61000-4-5) Pulse: 1.2/50 µsec, source impedance: 42 Ohm Sequence: 5 positive and 5 negative, repetition time: 60 sec. Common mode: Coupling between Data+ / Data- and GND	500 V 1000 V	✓
IMT Technology's extended test criteria Pulse: 10/700 µsec (T-surge) Source impedance: 27 Ohm Sequence: 5 positive and 5 negative, repetition time: 10 sec. Common mode: Coupling between Data+ / Data- and GND	2000 V 3000 V	✓

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