

ICN007

Transient Suppression Module for RS-485 Communications

- Provides Advanced Protection against Electrical Disturbances for RS-485 Systems



The ICN007 RS-485 Transient Suppression Module has been developed by INS Technologies to help protect RS-485 communication systems against common electrical disturbances.

FEATURES

- Power supply protection (immunity and fused)
- Signal (RS-485) protection (isolation and immunity)
- 2.5kV Galvanic Isolation of the RS-485 Ports
- ESD Protection (EN 61000-4-2): Level 4 (8kV Contact and 15 kV Air)
- EFT Protection (EN 61000-4-4): Level 4 (4kV on power port, 2kV on signal port)
- Surge Protection (EN 61000-4-5): Level unspecified (6 kV)
- Simple LED system status indication
- RS-485 Ports have selectable fixed terminations
- Baud rate selectable from 9600 - 115200 bits/sec
- DIN rail mounting

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The ICN007 protects against the following common electrical disturbances:

- Electrostatic Discharge (ESD) – Caused by personnel, who may have become electrostatically charged, touching the equipment or other equipment nearby.
- Electrical Fast Transient (EFT) – Bursts of fast low energy transients, produced by the switching of inductive loads, that are induced into signal and data circuits.
- Slow high energy voltage surge (Surge) – Slow high energy transients which may be induced into power and signal cables by lightning strikes in the vicinity.

- The ICN007 features two galvanically isolated RS-485 ports. The ICN007 modules can be installed between communication equipment in areas that are susceptible to electrical disturbances, offering an increased level of protection to the communication equipment.
- The ICN007 has selectable 'break signal overdrive' protection. This limits the maximum 'break signal' to a predetermined length preventing a system failure due to unwanted continuous 'low' drive onto the system bus.

SPECIFICATIONS

DIMENSIONS

Dimensions: 99.1 X 111.9 X 22.5 mm

Weight: 200g

Mounting: DIN Rail

POWER

Operating voltage: 18 to 36V (24V DC nominal)

Current Consumption: 100mA (at 24V)

Current Rating: 1.0A (fused)

INTERFACES

RS-485:

Port A - Selectable Fixed Termination (1200)

Port B - Selectable Fixed Termination (1200)

Port A & Port B - Isolated (2.5kV)

Baud Rate - 9600 to 115200 (configurable)

Break Signal Overdrive (selectable)

Power Supply:

Power In to Power Out, 1.0A fused

TEMPERATURE

Operating: -10 to 50°C

Storage: -40 to 70°C

AGENCY APPROVALS AND STANDARDS

- CE, UKCA, RoHs, WEEE compliant
- EMC: EN 61000-6-2
- EMC: EN 61000-6-4
- Safety: EN 60950

WIRING

