The Genesys Isolated RS-485 module is a highly robust communications interfacing solution designed to "take a hit" and survive. The RS-485 connections include large-sized transient absorbers and spark-gaps in a multi-staged protection network within the isolated region of the circuit board. The module also includes a number of other communications interfaces (e.g. CAN) making the module a versatile communications solution.

**AIR-GAPPED CONNECTIVITY**

As an isolated interface, the RS-485 connection offers complete galvanic isolation from the receiver while still providing superb performance and seamless connectivity. With in-built current limiting, thermal and short circuit protection measures, the Genesys Modular Stack Isolated RS-485 Module is the perfect solution for out-door and industrial monitoring and control environments.

**A LITTLE BIT MORE**

Designed for flexibility, the module also comes with a micro USB and CAN serial interface for the GMS stack, allowing for greater ease and simplification of complex system engineering.

**CHARACTERISTICS OVERVIEW**

<table>
<thead>
<tr>
<th><strong>RS-485 INTERFACE</strong></th>
<th></th>
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<tbody>
<tr>
<td>Up to 500kbps</td>
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<tr>
<td>Isolation voltage 2.5kVrms</td>
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<tr>
<th><strong>DIMENSIONS</strong></th>
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<tr>
<td>57mm x 34mm</td>
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<tr>
<th><strong>CONNECTIVITY</strong></th>
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<td>Genesys Modular Stack dual 40-pin connector</td>
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</table>

Genesys Modular Stack is a technology allowing for the easy interconnection of expansion modules. Genesys Modular Stack compliant modules feature a characteristic pair of board-to-board feedthrough connectors, so that they are infinitely stackable with each module adding new functionality. The Isolated RS-485 Module is fully Genesys Modular Stack compatible.
**CHARACTERISTICS**

**RS-485 SPECIFICATIONS**
- Isolation voltage 2.5kVrms
- 500kbps

**I/O INTERFACES**
- CAN bus (1Mbps)
- Genesys Modular Stack dual 40-pin connector:
  - 3V3 Power
  - 1 UART
  - Serial Peripheral Interface (SPI)
  - Inter-Integrated Circuit (I²C)
  - General Purpose Input/Output

**USB**
- USB micro A/B Device Port

**MEMORY**
- 2kb Serial EEPROM with Factory-Programmed EUI-48™ Address and Embedded Unique 128-bit Serial Number

**PHYSICAL**
- Dimensions: 73mm x 34mm

**ENVIRONMENTAL**
- Temperature (operating): -15°C to +55°C
- Temperature (survival): -55°C to +85°C
- Humidity (operating): 95% RH at 50°C

**POWER**
- 3V3 Switched Rail (ON/OFF capability)
- 145mA @3V3 (Standby with all LEDs on)
- <145mA @3V3 (Sleep with all LEDs on)
- <125mA @3V3 (LEDs off)
- <13mA @3V3 (3V3 Switch Rail off with RS485 and CAN off, LEDs on)
- <3mA @3V3 (LEDs off)

**MOUNTING DIMENSION DRAWING**