

# GENESYS



## ISOLATED 4-20mA LOOP MODULE

ISOLATED CURRENT LOOP  
INTERFACE with ISOSPI INTERFACE

Product Code: GBI-MS-201

**GENESYS**  
ELECTRONICS DESIGN

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## ISOLATED 4-20mA LOOP MODULE

The Genesys Isolated 4-20mA Loop Module is a highly-integrated solution for enabling any GMS compatible system to monitor current loop instrumentation.

### CUSTOMISABLE

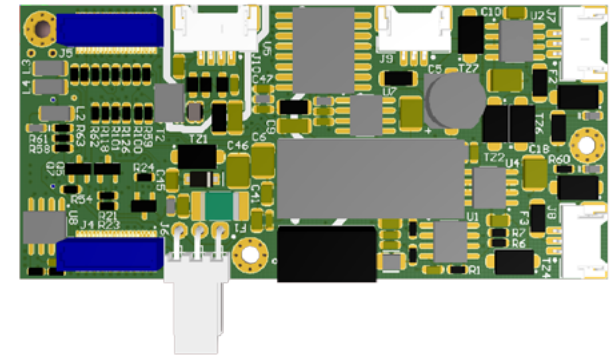
Each unit is provided with two 4-20mA current loop channels. The board can be configured to be compatible with 0-20mA, 0-10V, 1-10V, 0-50V and 1-50V inputs via fitting options. The unit's third channel is only capable of voltage signal sensing and it can be configured for 0-10V, 1-10V, 0-50V and 1-50V applications.

### ALL-IN-ONE SOLUTION

The Isolated Loop Module capable of generating a 24V stable supply for instrumentation on the current loop using its integrated DC-DC converters. The module also provides Isolation between the external inputs and the GMS interface, protecting the system from noise.

### IsoSPI INCLUDED

The module contains an IsoSPI interface based on the LTC6820. This interface is suitable for communicating with remote SPI devices (up to 100m cable lengths supported) and has the added benefit of electrical isolation.



### CHARACTERISTICS OVERVIEW

#### DIMENSIONS

73mm x 34mm

#### FEATURES

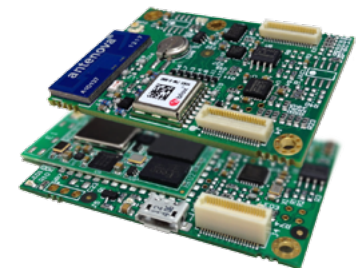
- Two Customisable Current Loop Channels
- One Voltage Signalling Channel
- One IsoSPI channel

#### SIGNALLING COMPATIBILITY

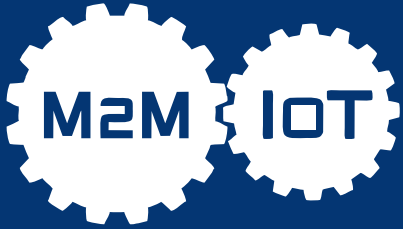
4-20mA, 0-20mA, 0-10V, 1-10V, 0-50V and 1-50V



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 4-20mA Loop Module is compatible with Genesys Modular Stack.



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## CHARACTERISTICS

### I/O INTERFACES

- 2 Isolated Current Loop Channels (configurable to support 4-20mA, 0-20mA, 0-10V, 1-10V, 0-50V and 1-50V signalling)
- 1 Isolated Voltage Channel (Configurable to support 0-10V, 1-10V, 0-50V and 1-50V signalling)
- 1 IsoSPI (Isolated SPI) channel compatible with LTC6820 devices
- Genesys Modular Stack dual 40-pin connector:
  - 3V3 Power
  - 1 UART
  - I2C
  - GPIO

### USER INTERFACE

- Power Status LEDs

### 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 CONSUMPTION

- Genesys Modular Stack 3V3 Power Load:
  - 12µA (Static)
  - 100mA (Dynamic)
- 12V External Power
  - <1µA (Static)
  - 60mA (Dynamic)

### EXTERNAL POWER OPTIONS

- External power needs to be supplied if both current loop channels are enabled:
  - 9.5-18VDC and 18V-36VDC external powering options
- Single Channel Powering Option

### MOUNTING DIMENSION DRAWING

