RTL-1

Controls Integration

The RTL-1 is a device that allows analog or resistive signals to be converted to a CANBUS message. The RTL-1 can also provide a resistance output to existing analog gauges.
The input/output parameters and CAN messaging can all be customized using the RTL configurator software package.

Features and Options

- Input signal may be configured as a resistance sensor for various gauges or as a 0-5V analog input with12-bit resolution
- ANA+ is a 5V output that may be used to power sensors up to 50mA; it has thermal and short circuit protection
- Output resistance ranges from 10 - 265 Ω
- Controls Integration is able to supply custom harnesses to connect this device to other components and harnesses in the application

Controls Integration can make recommendations and/or supply additional sensors to work in conjunction with this device.

Benefits

- Simple installation
- With resistance based sensors it is typically difficult to "tap" into the signal to feed it into a CAN bus system. This device solves that by taking in the resistance signal and outputting the same signal to feed the original destination like a dash cluster while putting the same information on the CAN bus
- Very useful for adding telematics to an older piece of equipment
- Built-in troubleshooting and error reporting

Custom and Specialty Applications

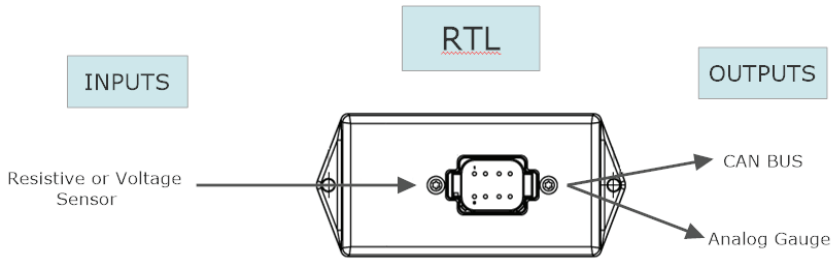
- The RTL-1 is designed with a micro control unit. Upon request, special controls/functionality can be employed based on analog inputs such as a thermostatic control, PID, etc.

Electrical Specifications

- Working Voltage Range: 7-27 VDC (Ambient Temperature Derate above 15V)
- Analog Input Resolution: 12-bit
- Analog Input Voltage Range: 0-5V
- Input Resistance Measurement Range: 10 - 1000Ω
- Input Resistance Measurement: voltage divider with pull up to internal 5V power supply
- Output Resistance Range: 10 - 265Ω
- Output Resistance Resolution: 1Ω
- Output Resistance Current Limit: 1/16 Watt
- Protection: Reverse Polarity Protection

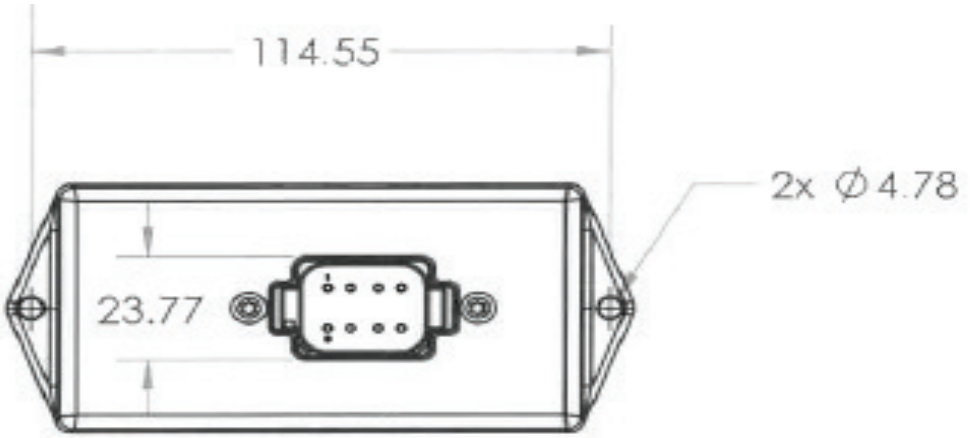
Environmental Specifications

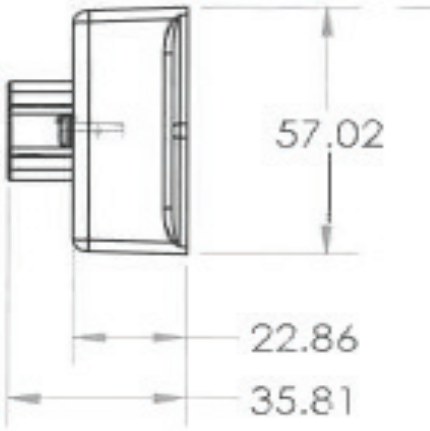
- Operating Temperature: -40°C to +85°C (-40°C to +125°C upon application review)
- Storage Temperature: -40°C to +125°C
- IP Rating: IP67

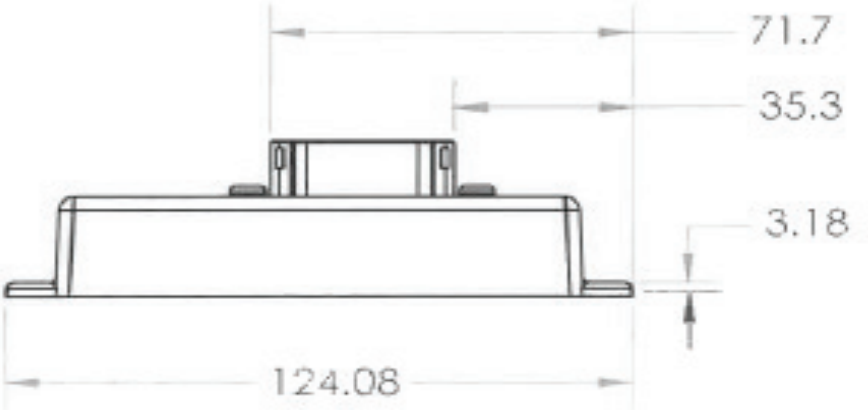


CONTROLS INTEGRATION LLC
Authorized Murphy Engineered Solutions Provider

www.controlsintegration.com
2859 Lexington Ave. South • Eagan, MN 55121







Unless Otherwise Specified:

Dimensions are in mm

Tolerances:

Angular ±1 Deg

One Place Decimal ±0.5

Two Place Decimal ±0.25

Three Place Decimal ±0.13

Connector and Pinout

Mating Connector-Deutsch DT06-08SA (or equivalent)

Input Signal (Resistive or 0-5V input)	1	8	ANA+
Resistance Output Signal	2	7	ANA-
CAN Low	3	6	B-
CAN High	4	5	B+