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BBG-ALARM

NMEA Monitor Alarm

Description

Electronic device designed to monitor a NMEA data stream and provide an alarm indication when data stream is corrupt or not present. The baud rate is selectable by dip switch. The alarm output is triggered when no valid data is received over a switch selectable time period.

Applications

- Monitoring of NMEA Data Stream
- Contact Closure or Open On Failure
- Monitors for No NMEA Messages
- Monitors for Bad NMEA Messages
- Heading, Speed, Roll Pitch Formats
- Many Others

Features

- Isolated Serial Input
- 2 Normally Open Relay Contacts
- 2 Normally Closed Relay Contacts
- DC Powered 8 to 30 VDC Power
- Configurable Alarm Delay
- Configurable Baud Rate
- Configurable Message Selection

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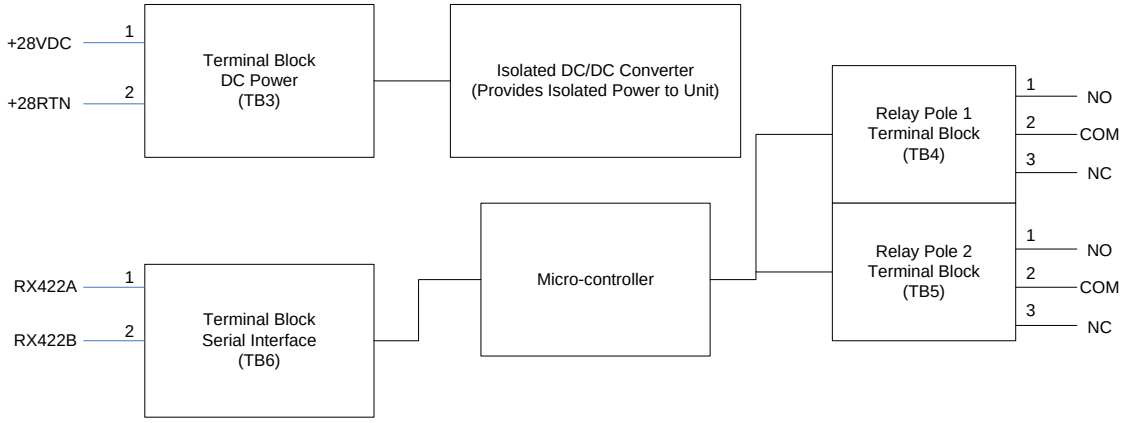
Block Diagram



Technical Specifications

Parameter	Value	Units
Power Supply	28	Volts
	TBD	Milli-Amps
Temperature Range		
Operating	0 to +50	C°
Storage	-65 to +150	C°
Input/Output		
Serial message	Jumper Selectable	Based on NMEA-0183
Serial Protocol	RS-232/422/423/485	
Dimensions	2.15x4.87x0.96	in
	5.46x12.37x2.44	cm

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OVERVIEW

RS-422/RS-232 Serial Interface

Isolated serial input accepts either RS-422 or RS-232 and baud rate is selectable using on board dip switch (SW1). A non-isolated serial output is available but not used in the standard configuration.

Relay Contact Output

A Double Pole Double Throw (DPDT) relay is available as output from the unit. A Common (C) and both the Normally Open (NO) and Normally Closed (NC) contacts are available for each of the two (2) poles available on the relay.

Available Firmware

The unit monitors the serial input for correctly formatted NMEA messages as configured by SW2 and validates the checksum if messages are sent with a checksum. The unit will close the NO contacts when valid NMEA messages are received for the configured delay period (See SW1). The unit will open the NO contacts when no valid message has been received the configured delay period (See SW1).
Note: Factory configured NMEA headers are listed in SW2 table. Other headers are available as custom configurations, but must be programed at the factory.

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CONFIGURATION SWITCHES

SW1 BAUD RATE AND ALARM DELAY SELECTION

1	2	3	4	BAUD RATE
OFF	OFF			38400
ON	OFF			19200
OFF	ON			9600
ON	ON			4800
1	2	3	4	ALARM DELAY TIME
		OFF	OFF	1 Second
		ON	OFF	2 Second
		OFF	ON	10 Seconds
		ON	ON	60 Seconds

SW2 MESSAGE HEADER SELECTION

1	2	3	4	MESSAGE HEADER
OFF	OFF			Uses Any Message Header
ON	OFF			“VBW”
OFF	ON			“HDT”
ON	ON			“PRP”

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CONNECTOR LIST

TB3 DC POWER

PLUGABLE TERMINAL BLOCK MANUFACTURER: On Shore Technology

POWER TERMINAL BLOCK: EDZ951/2

PIN NO	SIGNAL
1	+24VDC
2	24VDC Return

TB6 SERIAL INTERFACE

PLUGABLE TERMINAL BLOCK MANUFACTURER: On Shore Technology

PLUGABLE TERMINAL BLOCK: EDZ951/4

PIN NO	SIGNAL
1	RX422B
2	RX422A
3	TX422B (Y)
4	TX422A (Z)

TB4, TB5 RELAY CONTACT OUTPUT

PLUGABLE TERMINAL BLOCK MANUFACTURER: On Shore Technology

PLUGABLE TERMINAL BLOCK: EDZ951/3

PIN NO	SIGNAL
1	Normally Open (NO)
2	Common
3	Normally Closed (NC)

Notes

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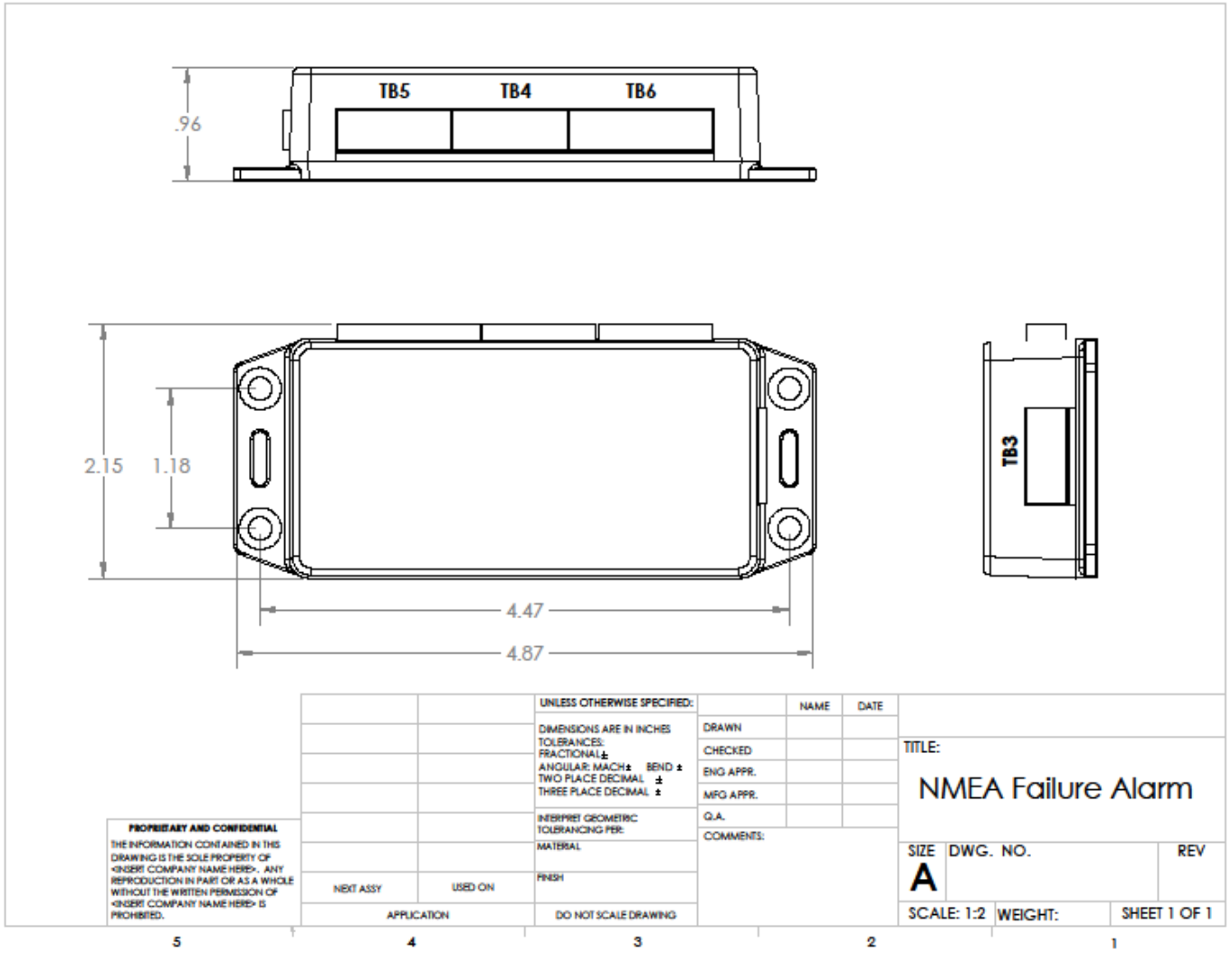

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