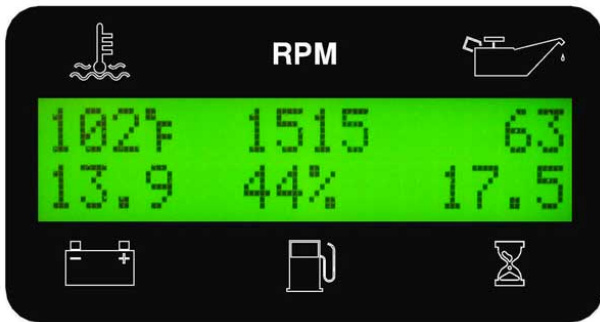


DESCRIPTION

The iMECH™ Engine Control Module is a microprocessor-based, digital controller for mechanically governed engines (12VDC & 24VDC). It provides complete engine monitoring, full display, shut down protections, fault logging and configurable inputs and outputs for application specific requirements. The module is easy-to-read, easy-to-use and simple to install. It is housed in a robust, sealed enclosure with a sealed connector. The iMECH™ is high-end control in a simple, cost effective module. Auto start is available (P/N C3M-100-AS).

DISPLAY

Six parameters are presented on a large backlit display with ½” characters providing a clear, easy-to-read summary of engine operation.



ENGINE PRE ALARMS & SHUT DOWNS

Both pre alarms and engine shut downs are available for oil pressure, engine temperature, over speed, fuel level and the auxiliary input. Pre alarm and shut down values can be selected via a password-protected menu. Relay outputs can be implemented for pre alarms and alarms. A log of the last 16 pre alarm/alarm occurrences can be accessed and viewed with engine hour tag.



When a pre alarm or shut down condition occurs, a message is displayed along with a yellow pre alarm LED illumination or red shut down LED illumination.

FLEX INPUTS & OUTPUTS

One flex input and up to three flex outputs can be configured for application requirements. The flex input can be set up for any switched input such as low oil level which can then be used as an auxiliary shutdown. Flex outputs can be set up for pre alarm, shut down and run indication signals.

ENCLOSURE

The heavy-duty polycarbonate enclosure is water tight and provides protection and longevity for off-highway industrial applications exposed to vibration, UV, chemicals, solvents, diesel fuel, oil, etc. Large tactile dome buttons to insure positive feedback for operators with gloves.

CONNECTOR

A water tight 14-pin connector is utilized providing simple plug-in installation and a robust, sealed connection for industrial applications. Engine harnesses are available to provide a complete “controller & harness” installation solution.



SPECIFICATIONS

GENERAL

| | |
|---|--|
| OPERATING VOLTAGE..... | 5.5 VDC to 36 VDC |
| MAXIMUM CURRENT CONSUMPTION AT 12.6V..... | 200mA |
| OPERATING TEMPERATURE..... | -20°C to +70°C |
| STORAGE TEMPERATURE..... | -30°C to +80°C |
| HUMIDITY..... | 95% Non-condensing |
| REVERSE POLARITY PROTECTION..... | Yes |
| TRANSIENT VOLTAGE SUPPRESSION..... | Yes |
| LOAD DUMP PROTECTION..... | Yes |
| DISPLAY..... | LCD, 1”H X 4”W, (2 lines x 16 characters/line) |
| ENCLOSURE..... | Polycarbonate |
| OVERLAY/INTERFACE..... | Autotex Polyester |
| APPROX. WEIGHT..... | 1.5 lbs |
| APPROX. DIMENSIONS..... | 5.69”H x 6.57”W x 1.61”D |

INPUTS

Analog Inputs

| | |
|-------------------------|---|
| TEMPERATURE INPUT..... | Stewart Warner Scale 0-1000 Ohms |
| OIL PRESSURE INPUT..... | Stewart Warner Scale 33-240 Ohms |
| FUEL LEVEL INPUT..... | Stewart Warner Scale 33-240 Ohms |
| SPEED SENSOR INPUT..... | Magnetic Pickup or Alternator Tach Output |

Digital Inputs

| | |
|--|---|
| DIGITAL FLEX INPUT..... | 1 |
| <i>Configurable as: 1) Normally open or normally closed, 2) Relay closure, pre alarm or alarm, 3) User defined message for display</i> | |

FLEX OUTPUTS

| | |
|--|---|
| 10A RELAY FORM A..... | 1 |
| 5A RELAY FORM A (Common Tied to 10A Relay)..... | 1 |
| 5A RELAY FORM A (Close to Ground)..... | 1 |
| 5A RELAY FORM A..... | 1 |
| <i>Each output is configurable per application requirements.</i> | |

CONNECTOR

| | |
|--------------------------|------------------------|
| TYCO AMPSEAL 14-PIN..... | ENVIRONMENTALLY SEALED |
|--------------------------|------------------------|

OTHER

| | |
|--|------------|
| ENGLISH/METRIC DISPLAY..... | SELECTABLE |
| DISPLAY BACKLIGHT ADJUSTMENT..... | SELECTABLE |
| DISPLAY TEMPERATURE CONTRAST ADJUSTMENT..... | AUTOMATIC |

Extreme Cold Weather Option

| | |
|----------------------------|----------------|
| OPERATING TEMPERATURE..... | -45°C to +85°C |
| STORAGE TEMPERATURE..... | -55°C to +95°C |

ACCESSORIES

For a complete installation, engine harnesses, extension harnesses and other accessories such as water temperature senders, oil pressure senders, magnetic pickups and key switches are available.