Intellitec
1485 Jacobs Rd. Deland, FL 32724
386.738.7307
www.intellitec.com

Water Proof Six Output/Four Input Module

00-00934-000

The Water Proof Six Output/Four Input Module 00-00934-100 is a member of Intellitec's Programmable Multiplex Control family. It works in combination with the PMC CPU or the 160 channel IPX master and other standard, semi-custom, or custom I/O modules. The module can be used on either 12 or 24 volt systems.

The module provides power switching, with electronic over-load protection, and distribution. Switching is accomplished via long life, field effect transistors. Five outputs can each provide up to 10 Amps and one of the outputs will provide up to 20 Amps. The total module current is limited by the *"I squared rule"* on the following page. Each output channel is programmable to respond to any of the 160 channels on a PMC loop. They can be paralleled to provide greater output capability.

MODULE PROGRAMMABILITY

A number of parameters of the module are programmable, by the user, to provide a great deal of flexibility in its application. These parameters are set using a GUI on a PC and loaded into the module through an on-board port. The programmable parameters include the following:

- channel allocation for each output
-minimum expected output current (greater than 3 amps)
- channel allocation for under current warning
- channel allocation for over current warning
- channel allocation for each input
- input active state (high/pull up or low/pull down)
- input indicators on at active input or active input and test switch

OVER-LOAD / UNDER LOAD PROTECTION

The module includes Load Level Detection and protection.

The anticipated minimum load value for each output can be set from the GUI. If the load falls below the programmable, minimum current, the module will "report" that low current situation both through the on-board LED, which will flash slowly and optionally through the multiplex bus where it can be used to alert the driver or service personnel. This can be used to alert the driver of a bulb-out condition.

The module includes electronic over-load protection. Each channel will allow a typical start-up surge of 80 amps for 0.25 seconds to allow for load in-rush. If it is greater than this, the output will shut down. After the initial in-rush, the module will monitor the current and shut down if the current is higher than the output rating. The module will then "report" the over-load both visually through the on-board diagnostic LED, which will flash fast and optionally through the multiplex bus where it can be used to alert the driver or service personnel of the fault. To reset the output, the signal to that channel must be turned off and back on again.

LED DIAGNOSTIC INDICATORS

The Module includes a set of eleven diagnostic LED indicators to aid in the servicing of the associated system. Next to the output Deutsch DT style connector there are six green LEDs. Each of these are associated with one of the outputs.

If an output is on, the LED will be on. If the output is off the LED will be off. If the output is on but below the current threshold, the LED will blink slowly. If the output is off because of an over load, the LED will blink fast.

There are four green input LEDs around the input connector that indicate the input state is *active.* These LEDs can be programmed to be on all the time or only when it is *active and* the TEST switch is pressed. This feature helps to minimize battery drain in certain applications. The active state can be programmed to be high or low.

There is also one red LED. This will illuminate if multiplex communications fail. In this case check the connections at J2.

OUTPUT CURRENT READOUT

The module has the ability to measure the actual current being supplied to each load. This analog data is available to be read out via the computer connection used for programming.

The approximate module dimensions are 7.25" X4.75" X 2.25" (184mm X 121mm X 57mm).

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SPECIFICATION

Module Part number 00-00934-100
Vehicle Voltage 8V to 31V

IPX Connections

J1-1	Communications Signal
J1-2	Communications Ground

Output Connections

J2-1 & 12	Output 1 (Both pins need to be connected if load exceeds 13 Amps)
J2-2	Output 2
J2-3	Output 3
J2-4	Output 4
J2-5	Output 5
J2-6	Output 6
J2-7	Power Ground
J2-8	No Connection
J2-9	Programming
J2-10	Programming
J2-11	Programming

Input Connections

J3-1	Input 1
J3-2	Input 2
J3-3	Input 3
J3-4	Input 4

"I SQUARED RULE"

** Total module current is limited by the following. The sum of the current squared for each output may not exceed 450.

$$I1^2+I2^2+I3^2+I4^2+I5^2+I6^2 < 450$$

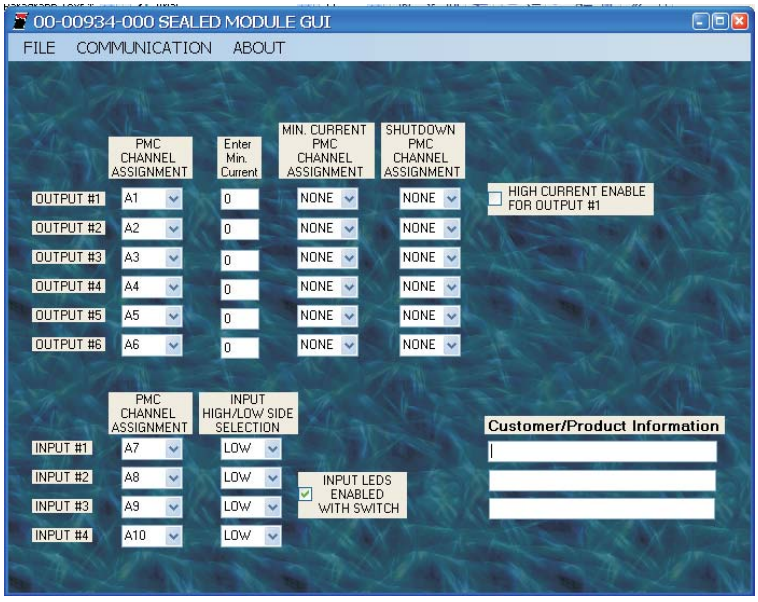
Failure to follow this rule may cause module failure.

Mating Connectors

Battery 1/4" Ring Terminal		Wedge	Deutsch Pins
J1	Deutsch DT 06 2S	W2S	14-16 AWG 1062-14-0122
J2	Deutsch DT 12 2S	W12S	16-18 AWG 1062-16-0122
J3	Deutsch DT 04 2S	W4S	Sealing plug 114017

Module Set Up

There are a number of operating parameters that need to be set up in the module. They are set using a program on a PC with a GUI. This program is available from the Intellitec web site (www.Intellitec.com). An adapter harness for programming is available from Intellitec (part no 11-00934-000).



***Intellitec* PMC System**