

## Intellitec 00-01039-000

# Multiplex Flex I/O Module

The Multiplex Flex I/O Module 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 and distribution with electronic overload protection. The module provides a total of 24 input channels and 38 output channels. Eighteen of the input channels are configured as high-side inputs and the remaining 6 are configured as low-side inputs. Twenty-four of the output channels are rated up to 3A, 12 channels up to 10A, and 2 channels up to 20A. Switching is accomplished via long-life field effect transistors. Each output channel may be assigned to any of the 160 channels on a PMC loop. Outputs may be paralleled to provide greater current capability. Total current of all the output channels may not exceed 80 amps.

### Module Programmability

A number of parameters of the module are user programmable 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. This program is available at [www.Intellitec.com](http://www.Intellitec.com). A programming adapter harness is available from Intellitec (part no. 11-01039-000). Each output channel is preset from the factory to an anticipated minimum load value. The programmable parameters include:

- Channel allocation for each input and output
- Threshold and channel allocation for under current warning
- Threshold and channel allocation for over current warning

### Overload / Underload Protection

The module includes electronic overload protection. The module will monitor output current of each channel and shut down that channel if the current is higher than set in the configuration. To reset the output, the signal to that channel must be turned off and back on again.



The module also includes load undercurrent detection and protection. If the load falls below the programmable minimum current, the module will report that low current situation on the Diagnostic Display.

### Output Current Readout

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

### LCD Diagnostic Display

The Module includes an on-board LCD diagnostic display to aid in the servicing of the associated system. The display indicates the current status of all channels. The status may be On, Off, Overload, Underload, or Short. The display will also indicate network communications faults. The information from each module may also be transmitted to an external display panel used to alert the driver or service personnel.

### Module Dimensions

11.5" x 5.75" x 1.0" (290mm x 145mm x 25mm) (approx)

### Mating Connectors

J1, AMP 776164-1                      J2, AMP 776164-4  
 J1/J2 Contacts: 770854-1            Plugs: 770678-1  
 J5/J6: 1/4" "Fast-on"  
 Battery: 5/16" Ring Terminal



[www.intellitec.com](http://www.intellitec.com)

1485 Jacobs Rd  
 Deland, Florida 32724  
 386-738-7307

# Multiplex Flex I/O Module

**Specification**

Module Part number: **00-01039-000**  
 Vehicle Voltage: 8V to 31V  
 Max Module Current: 80 Amps Maximum

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Terminal	Function	Terminal	Function
<b>Low Current Outputs (3A max. 18 AWG min wire size.)</b>			
J1-1	Output 4	J2-1	Output 16
J1-2	Output 3	J2-2	Output 15
J1-3	Output 2	J2-3	Output 14
J1-4	Output 1	J2-4	Output 13
J1-5	Output 8	J2-5	Output 20
J1-6	Output 7	J2-6	Output 19
J1-7	Output 6	J2-7	Output 18
J1-8	Output 5	J2-8	Output 17
J1-9	Output 12	J2-9	Output 24
J1-10	Output 11	J2-10	Output 23
J1-11	Output 10	J2-11	Output 22
J1-12	Output 9	J2-12	Output 21

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**Inputs (20 AWG min wire size.)**

J1-13	Input 1	J2-13	Input 13
J1-14	Input 2	J2-14	Input 14
J1-15	Input 3	J2-15	Input 15
J1-16	Input 4	J2-16	Input 16
J1-17	Input 5	J2-17	Input 17
J1-18	Input 6	J2-18	Input 18
J1-19	Input 7	J2-19	Input 19
J1-20	Input 8	J2-20	Input 20
J1-21	Input 9	J2-21	Input 21
J1-22	Input 10	J2-22	Input 22
J1-23	Input 11	J2-23	Input 23
J1-25	Input 12	J2-25	Input 24

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**Medium Current Outputs (10A max. 16 AWG min wire size.)**

J1-24	Output 25	J2-24	Output 31
J1-26	Output 26	J2-26	Output 32
J1-28	Output 27	J2-28	Output 33
J1-30	Output 28	J2-30	Output 34
J1-32	Output 29	J2-32	Output 35
J1-35	Output 30	J2-35	Output 36

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**High Current Outputs (20A max. 14 AWG min wire size.)**

J5	Output 37
J6	Output 38

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**Other (20 AWG min wire size.)**

J1-27	CANL	J2-27	CANH
J1-29	NC	J2-29	NC
J1-31	Ground	J2-31	Ground
J1-33	IPX +	J2-33	RS-232 RX
J1-34	IPX -	J2-34	RS-232 TX

