



131 Eisenhower Lane N., Lombard, IL 60148
630 268 0010 800 251 2408
www.intellitecsve.com

**Protected FET 10 Channel Solid-State Output
00-00802-600/610 PMC Solid State I/O Module**

The PMC I/O Module 600/610 is a member of Intellitec's Programmable Multiplex Control family. It works in combination with the PMC CPU and other standard, semi-custom, or custom I/O modules.

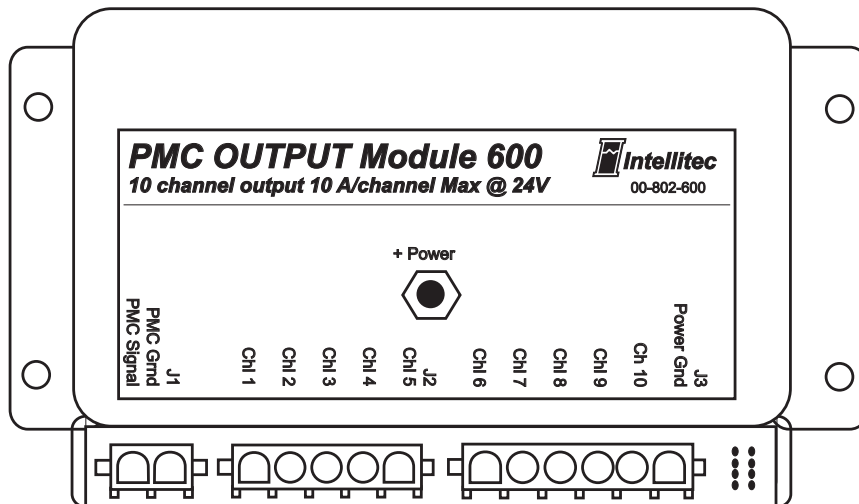
The 600/610 module provides power switching, and distribution in one module. With its ten, solid-state, high-side outputs, it is capable of controlling a total of 50 Amps. Each output is capable of controlling a maximum of 10 Amps. ***Please refer to the tables in this brochure for proper load distribution.* The outputs are controlled by field effect transistors and are ideal for high use applications, such as turn signals, brake lights and emergency vehicle flashers.

The advanced FET outputs in the 600/610 module are self protecting in the event of a short circuit. The electronic over current and short circuit protection will shut current flow off very quickly in the event of either a short circuit or over temperature condition. In the event that overcurrent or a short circuit is detected, the output will turn off and remain off until the PMC channel that is controlling it is turned off and then on again. If the fault is still present, the output will turn off again.

The unique design of this module provides protection for the FET outputs in the event of wiring errors or failures that produce loss of ground. With most competitive units, loss of ground can cause their solid state outputs to turn partially on when they are not directed to do so. In addition to creating a hazard due to loss of control, this will also destroy the output. In the event of loss of ground the Intellitec output will remain off. All of Intellitec's FET output modules are protected for this as well as other conditions such as load dump and voltage spikes that are common to vehicles.

** Determining Acceptable Load distribution

$$I1^2 + I2^2 + I3^2 + I4^2 + I5^2 + I6^2 + I7^2 + I8^2 + I9^2 + I10^2 \leq 255$$





SPECIFICATIONS

General Connections

Nominal Vehicle Voltage	00-00802-610	00-00802-600
Maximum Operating Temperature	12V	24V
Module Current	65° C	65° C
	50 Amps Total Max	50 Amps Total Max

CONNECTORS

J1-1	PMC Signal	18 awg Min.	18 awg Min.
J1-2	PMC Ground	14 awg Min.	14 awg Min.

CHANNEL DESIGNATIONS

Channel	Connection	Type	Rating
1-5	J2-1 thru J2-5	Protected FET Output	10 Amps cont. Any output @65° C Ambient.
6-10	J3-1 thru J3-5	Protected FET Output	10 Amps cont. Any output @65° C Ambient.
Pwr GND	J3-6		<u>See formula & examples on "Determining Acceptable Load Distribution" page.</u>

+ BAT Power stud 1/4 - 20

NOTE: The FET outputs of channels 1-10 provide a protected source of voltage to the Load from the Battery. The maximum current for the entire module is 50 Amps. Due to the need to dissipate heat, the current being controlled by each output must be considered.

For reliability, the sum of the current in each channel squared must equal less than 255 and total module current must not exceed 50 Amps. $I_1^2 + I_2^2 + I_3^2 + I_4^2 + I_5^2 + I_6^2 + I_7^2 + I_8^2 + I_9^2 + I_{10}^2 = 255$

Do not exceed 50 Amps total and stay within the recommendations for the combination of outputs described in this data sheet. Contact Intellitec for assistance determining if your particular load distribution will provide for a reliable design.

MATING CONNECTIONS

Designator	Function	Connector	Mating Part #	Contact, Typical	
				for 14-18 AWG	for 10-12 AWG
J1	PMC/Com	2 Pin Amp Mate-N-Lok	1-480698-0	350919-3	640310-3
J2	Outputs	5 Pin Amp Mate-N-Lok	1-480763-0	350919-3	640310-3
J3	Outputs	6 Pin Amp Mate-N-Lok	640585-1	350919-3	640310-3

MODULE SETTINGS

Module can be set for 1 of 16 address, A-P.
Set four jumpers on jumper block JP2
per table on right.

X = Jumper is OUT

JUMPERS	Module	JUMPERS
4 3 2 1	Address	4 3 2 1 Address
0 0 0 0	A	X 0 0 0 I
0 0 0 X	B	X 0 0 X J
0 0 X 0	C	X 0 X 0 K
0 0 X X	D	X 0 X X L
0 X 0 0	E	X X 0 0 M
0 X 0 X	F	X X 0 X N
0 X X 0	G	X X X 0 O
0 X X X	H	X X X X P