



ENGINE GOVERNING SYSTEMS

PRODUCT
INFORMATION
BULLETIN

PIB4071

MARCH 2001

EAM113 GAC to Caterpillar INTERFACE MODULE

INTRODUCTION

The EAM113 interface module is designed to be used between the CAT PEEC engine control and an external control such as a variable speed input or a Load sharing and Synchronizing system. The output of the EAM113 is a current sinking PWM signal that controls the CAT engine control.

The EAM113 has two inputs, a 4-20 mA input as well as a 5.0V DC input. The 4-20 mA input serves to provide a wide range of PWM for maximum changes at the PEEC control. The 5.0vdc input is a limited range PWM output around 50% duty cycle for trimming of the speed for such usages as GAC load sharing and synchronizing.

A single potentiometer adjustment allows the range of the input signal's effect on the PEEC control to be limited from maximum to minimum PWM duty cycle. The PWM frequency is fixed at 500 Hz. Supply voltage for the interface is the same 24V DC battery that supplies the CAT PEEC system.

WIRING

See Wiring Diagram.

For 4-20 ma input, supply the current signal to Terminal 4. Terminals 3, 5, and 6 are to remain open.

For a 5.0V DC input (load sharing/ sync signal), connect to Terminal 3. Terminals 5 and 6 must be jumpered together. Terminal 4 must remain open.

SPECIFICATIONS

Input impedance (Terminals 4 & 2)	100 ohms
Maximum voltage (Terminals 4 & 2)	5V DC
Input impedance (Terminals 3 & 2)	500K ohms
Output Impedance (Terminals 7 & 8)	< 100 ohms (current protected)
Nominal PWM range (Terminals 7 & 8)	0 - 100%
Transfer function (4-20 mA) (5.0V DC)	20 mA in= adjustable, 0-100% duty cycle 5.0V in= 50% duty cycle, adjustable
DC supply (Terminals 1 & 2)	18-24V DC
DC current supply (Terminals 1 & 2)	20 mA
Temp range	-40° to +85°C

WIRING DIAGRAM

