

## EAM122 GAC to Volvo EMS Interface Module

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## 1 INTRODUCTION

The EAM122 is an electronic interface module designed for use with the Volvo EMS engine control system. The module accepts a nominal 5V DC input signal and converts this signal to a 2.9V DC analog signal for the EMS control across a galvanic isolated barrier to prevent noise from interfering with measured signal.

Typical usage is as a signal conditioner between a GAC auto synchronizer / load sharing system and the Volvo EMS engine control. The power to operate the interface comes from the 24V DC on the engine side (EMS) of the application.



## 2 SPECIFICATIONS

POWER	
Input Impedance (Terminals 6 and 5)	200 ΚΩ
Input DC voltage (nominal) (Terminals 6 and 5)	5.0 V DC
Output Impedance (Terminals 3 and 4)	100 Ω
Nominal Output Voltage (Terminals 3 and 4)	2.9 V DC
Output Voltage Range (Terminals 16 and 27)	2.4 to 3.4 V DC
Transfer Function	-0.2 Volts Out / Volt In
DC Supply Voltage Range (Terminals 1 and 2)	15 - 32 V DC
Isolation barrier rating (Terminals 2 and 4)	1000 V DC
DC Supply Current (Terminals 1 and 2)	75 mA
PHYSICAL	
Temperature Range	–40° - 185 ° F [–40° to +85°C]
Dimensions	1.02 x 3.0 x 3.5 in [25.91 x 101.60 x 118.62]
Mounting	Vertical mounting preferred
Relative Humidly	up to 97%



## 3 WIRING AND DIMENSIONS

An overspeed shutdown device, independent of the governor system, should be provided to prevent loss of engine control which may cause personal injury or equipment damage. A secondary shutoff device, such as a fuel solenoid, must be used.

The common battery minus connection between the EMS system, EAM122, and the GAC auto-sync and load sharing system should be as direct as possible electrically (minimum voltage difference)

