
	<b>Document:</b> Technical Description <b>Version:</b> 2 <b>Status:</b> actual <b>Author:</b> bs <b>Date:</b> 05-07-12 <b>Approved:</b> ro <b>Date:</b> 05-07-12 <b>File:</b> PC	<b>EAM116</b> <b>General Purpose</b> <b>Interface Module</b>  GAC PIB4074 (March2001)	 Tel.: +41-62-916 50 30 Fax: +41-62-916 50 35 www.huegli-tech.com
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## EAM116

# GENERAL PURPOSE INTERFACE MODULE

### Introduction

The EAM116 is a general purpose electronic interface module which can accept one of 4 different speed setting signals (a 0-10V DC signal, (two) 0-5V DC signals or a 4-20 mA signal) and convert them across an galvanic isolation barrier to a single 0-5V DC output signal to control a GAC digital governor or certain analog controls. The selection of one of the four input signals is chosen by the two wire coded selector terminals. The input and output signals are galvanically isolated from each other and the unit receives its power from a DC supply which is common to the output circuit.

Typical usage is where an isolated signal is required to control a governor or other system. Applications are where multiple stations are to control the governor setting and a selection of which station is in control can be made digitally.

### Wiring

See Wiring Diagram. Note: DC power must come from the output side of the system.

### Calibration of each channel and indicators

Each channel has two adjustments that allow calibration of the transfer function (input to output). A gain and offset adjustment and an LED is provided for each channel. The LED indicates which channel has been selected and a separate LED indicates if the isolation barrier has been violated. The LEDs are simply indicators of a condition.

To calibrate each channel, a simulation signal must be applied to the selected input and the output of the module measured. An example is where the desired output is a 1-4V DC signal (3V DC change) based on the input change of 0-5V DC. With 5V DC applied at the input, adjust the gain so that the output reads 3V DC. Now with 0V DC at the input, adjust the offset for a 1V DC output. The range will now be 1-4V DC for a 0-5V DC input. Recheck the points and make small adjustments if necessary.

### Specifications

#### Input impedance:

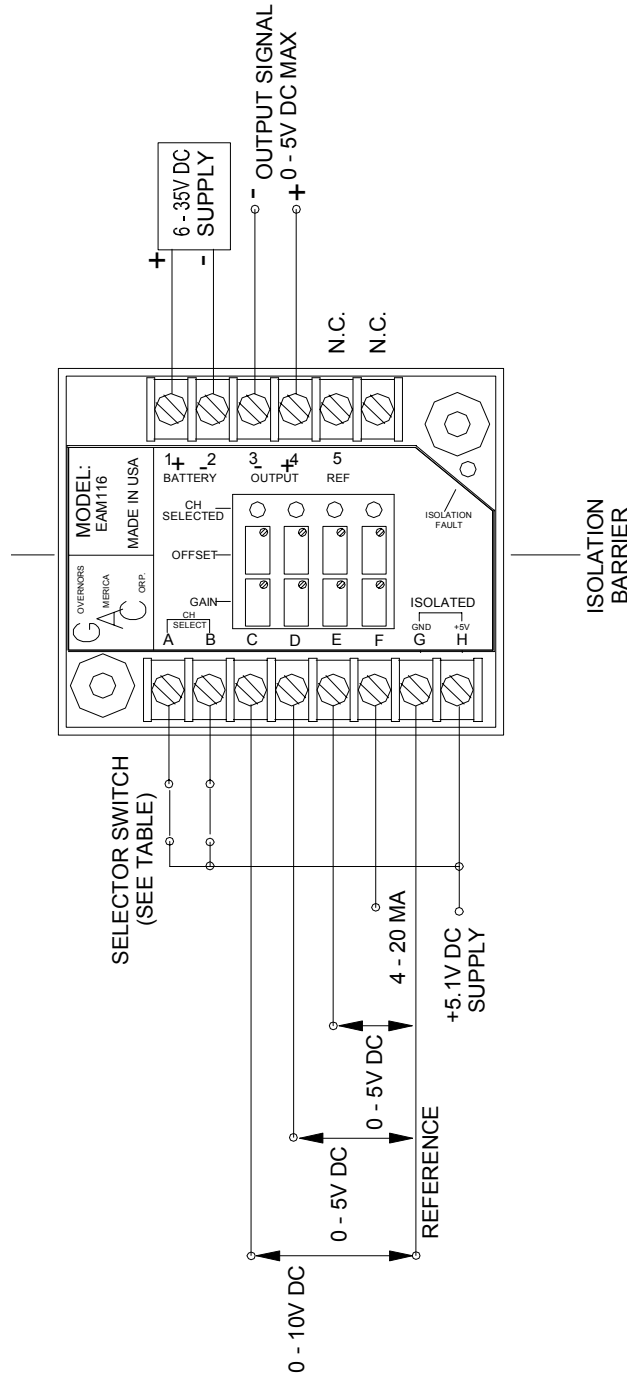
0-10V channel (Terminals C & G)	20K ohms
0-5V channels (Terminals D & G)	10K ohms
(Terminals E & G)	10K ohms
4-20 mA channel Terminals F & G)	100 ohm burden resistor (5V DC max)

#### Output impedance:

(Terminals 3 & 4)	1K ohms
Terminal H (Terminals H & G)	5V DC @ 2 mA (with pot input)
DC supply range (Terminals 1 & 2)	6 to 35V DC

DC current consumption (Terminals 1 & 2)	? mA
Temp Range	-40° to +85°C
Galvanic Isolation (Terminals 2 & H)	1000V DC

**Wiring Diagram WD 188A**



Terminal A	Terminal B	Active Input Terminal C	D	E	F
open	open	C (0-10 VDC)			
conn. to H	open	D (0-5 VDC)			
open	conn. to H	E (0-5 VDC)			
conn. to H	conn. to H	F (4-20 mA)			