



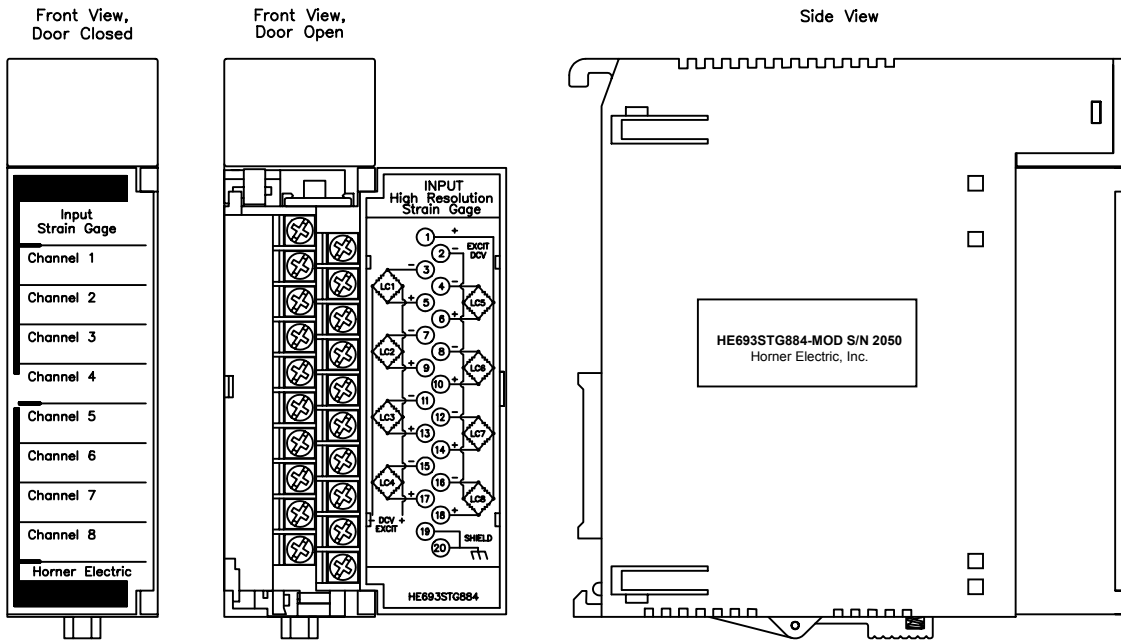
High Resolution MilliAmp Input Module

Product Specifications

DESCRIPTION

The High Resolution MilliAmp Input Module allows a milliAmp signal to be directly connected to the PLC without external signal processing (transducers, transmitters, etc.). All analog and digital processing of the signal is performed on the module, and precision values are written to the Series 90-30 %AI input table with 16 bit resolution. The input range of this module is +/-1mA. This provides a resolution of approximately .03uA. Also, individual channels can be turned off, so that unused channels do not increase module response time. The HE693STG884-MOD also features a setpoint for each channel, set with %AQ values and enunciated with %I inputs. The first 8 %I inputs represent overrange for each individual channel. The second 8 %I inputs are setpoint exceeded bits. When the input value exceeds the corresponding setpoint value the setpoint exceeded bit will be energized. Outputs (%Q) are configured for this module but should not be utilized while measuring current.

ILLUSTRATION



STG884.DWG

SPECIFICATIONS

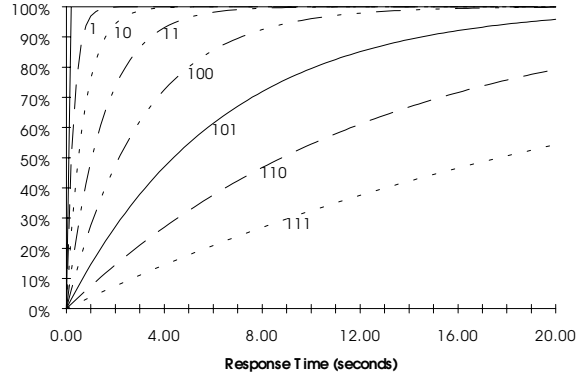
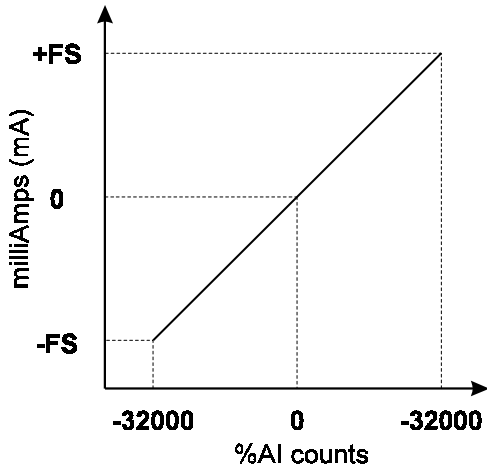
Specification	HE693STG884-MOD	Specification	HE693STG884-MOD
Power Consumption	100mA @ 5VDC	Max Normal Current Input	1mA
Number of Channels	8	Maximum Safe Voltage	+/- 35VDC or AC
I/O Points Required	8-%AI, 16-%I, 8-%AQ, 16%Q	A/D Conversion Type	Integrating
Input Range	+/-1mA	A/D Conversion Time	35 channels per second
Resolution	.031uA	Operating Temperature	0 to 60°C (32 to 140°F)
Accuracy	.03%	Relative Humidity	5% to 95% non-condensing
Input Impedance	>1000 Mohms		

SOFTWARE CONFIGURATION	
SLOT 4	Catalog #: FOREIGN FOREIGN MODULE
FRGN	Module ID : 3 %I Ref Adr : %I0001 Byte 1 : 00000001 Byte 9 : 02 %I Size : 16 Byte 2 : 00000100 Byte 10 : 02 %Q Ref Adr : %Q0001 Byte 3 : 02 Byte 11 : 00 %Q Size : 16 Byte 4 : 02 Byte 12 : 00 %AI Ref Adr : %AI0007 Byte 5 : 02 Byte 13 : 00 %AI Size : 8 Byte 6 : 02 Byte 14 : 00 %AQ Ref Adr : %AQ0001 Byte 7 : 02 Byte 15 : 00 %AQ Size : 8 Byte 8 : 02 Byte 16 : 00

Logicmaster™ 90-30 Foreign Module Configuration. To reach this screen, select I/O Configuration (F1), cursor over to the slot containing the module and select Other (F8), and Foreign (F3).

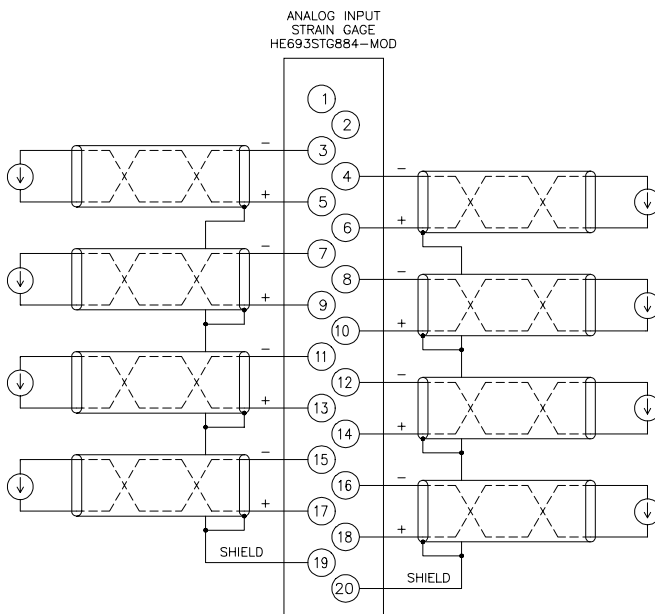
%AI	%I	%AQ	%Q	Byte 1	Byte 2	Byte 3-10
8	16	8	16	1	0 to 111 binary (see chart)	2:ON 6:OFF

Configuration Parameters. The necessary parameters are %AI Size, %I Size, %AQ Size, %Q Size, Byte 1, Byte 2 (digital filtering), and Bytes 3-10(channel on/off select).



Digital Filtering. The effect of digital filtering (set with Byte 2) on module response to a milliAmp input change (% milliAmp change completed vs. time). The response time is improved by 12.5% for each unused channel turned off with bytes 3-10 in the configuration.

Normal Input Scaling. The value of each %AI input varies from -32,000 to +32,000, as the milliAmp input ranges from minus full scale (-FS) to positive full scale (+FS). Full scale is +/- 1mA.



Installation Hints

- Keep total wire resistance less than 100 ohms to maintain rated accuracy.
- Wiring should be routed in its own conduit. Shielded, twisted pair wiring offers best noise immunity.
- If shielded wiring is used, a good earth ground connection is critical. If shields are connected at the module end, terminals 19 & 20 may be used as the shield ground.
- All unused inputs should be shorted and connected to pin 19 or 20