

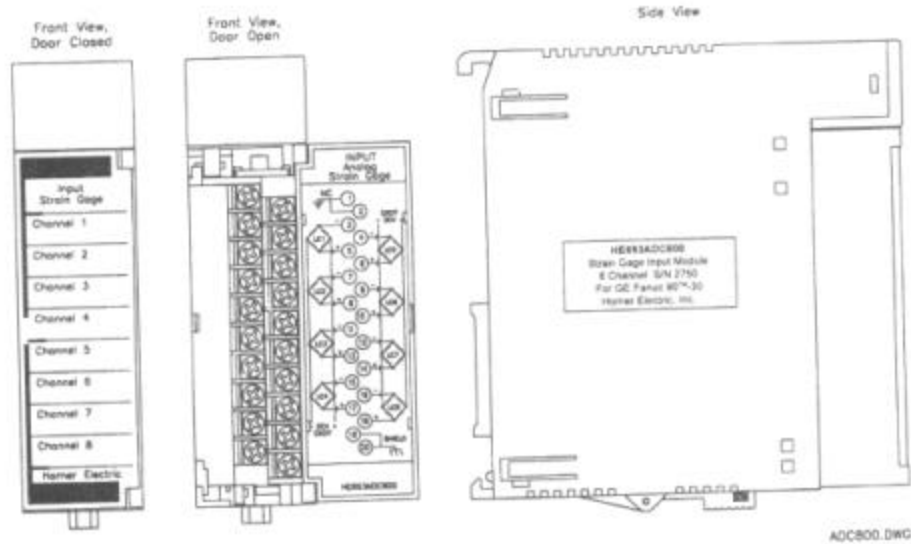


Strain Gage Module Product Specifications and Installation Data

DESCRIPTION

The Horner Electric Strain Gage Input Modules allow bridged strain gages (load cells) 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 millivolt values are written to the 90-30 %AI input table. There are four channel (ADC400, ADC401) and eight channel (ADC800, ADC801) models available. There are models available with a range of 0-51.1875mV, and resolution of 12.5uV (ADC400, ADC800), and models with a range of 0-25.59mV, and resolution of 6.25uV (ADC401, ADC801).

ILLUSTRATION



SPECIFICATIONS

Specification	ADC800/[400]		ADC801/[401]	
	Power Consumption	100mA @ 5VDC		
Number of Channels	8 [4]			
I/O Points Required	8%AI [4%AI]			
Strain Gages Supported	Bridged (Load Cells)			
Input Range	0-51.1875mV	0-25.59mV		
Resolution	12.5uV	6.25uV		
Accuracy	+/- 12.5uV			
Input Impedance	20kohms			
Max Normal Voltage Input	54.875mV (Type K @ 1372°C)			
Maximum Voltage Input	+/- 5VDC or AC			
A/D Conversion Type	Successive Approximation			
A/D Conversion Time	1 ms			
Operating Temperature	0 to 60°C (32 to 140°F)			
Relative Humidity	5% to 95% non-condensing			

CONFIGURATION

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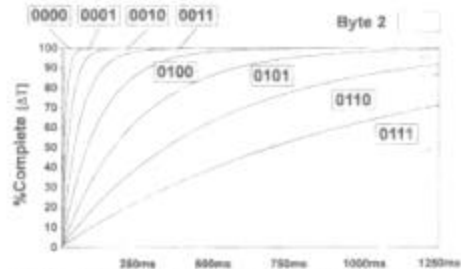
RACK 1 2 3 4 5 6 7 8 9 10
  locn 2loc 3loc 4loc 5loc 6loc 7loc 8loc 9loc 10loc
>
SERIES 90-30 MODULE IN RACK 3 SLOT 2
SOFTWARE CONFIGURATION
SLOT 2 Catalog #: FOREIGN FOREIGN MODULE
FRGN
Module ID : 3
%I Ref Adr : %I0001 Byte 1 : 00000001 Byte 9 : 00
%I Size : 8 Byte 2 : 00001000 Byte 10 : 00
%Q Ref Adr : %Q0001 Byte 3 : 00 Byte 11 : 00
%Q Size : 8 Byte 4 : 00 Byte 12 : 00
%AI Ref Adr : %AI0001 Byte 5 : 00 Byte 13 : 00
%AI Size : 8 Byte 6 : 00 Byte 14 : 00
%AQ Ref Adr : %AQ0001 Byte 7 : 00 Byte 15 : 00
%AQ Size : 8 Byte 8 : 00 Byte 16 : 00

D:\LM90\ADC OFFLINE
REPLACE PRG: ADC CONFIG VALID
  
```

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).

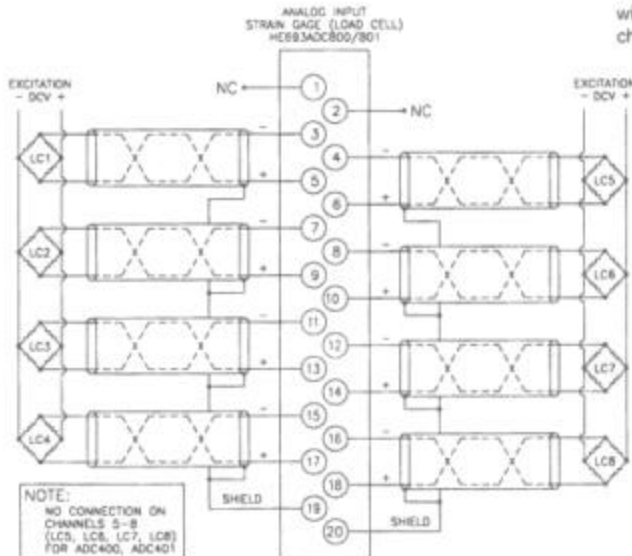
Model	%AI Size	Byte 1	Byte 2
HE693ADC400	4	0001	0000 thru 0111(see chart)
HE693ADC401			
HE693ADC800	8	0001	0000 thru 0111(see chart)
HE693ADC801			

Configuration Parameters. The three necessary parameters are %AI Size, Byte 1, and Byte 2.



Digital Filtering. The effect of digital filtering (set with Byte 2) on module response to a temperature change. (% temp change completed vs. time).

WIRING/INSTALLATION



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Installation Hints

- ☑ Keep total wire resistance less than 100Ω to maintain rated accuracy.
- ☑ Wiring should be routed in its own conduit.
- ☑ Shielded, twisted pair extension wiring offers best noise immunity.
- ☑ If shielded wiring is used, a good earth ground connection (on one end only) is critical. If shields are connected at the module end, terminals 19 & 20 may be used as the shield ground point.