I-87016W Hardware User Guide *Ver. 1.0*

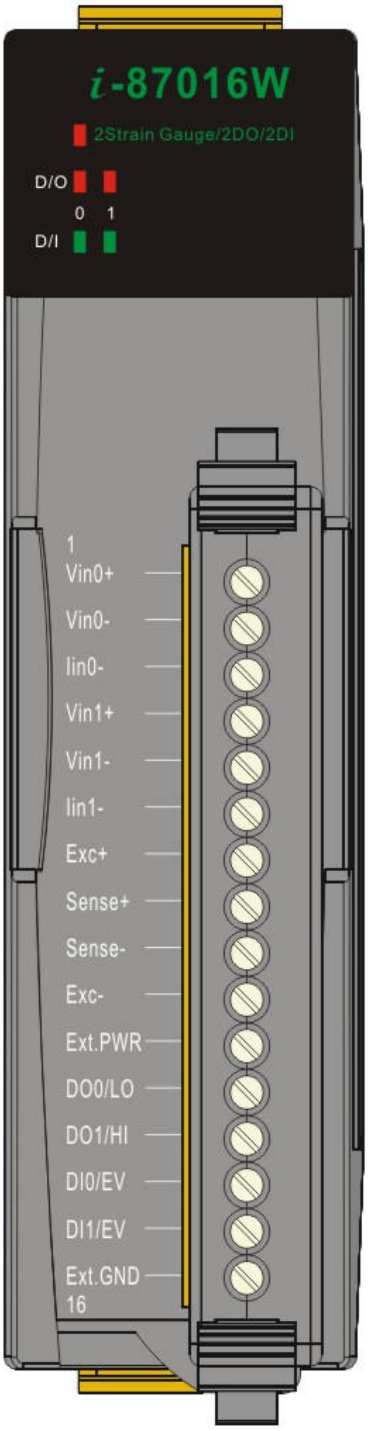
Last Modified 02/01/2010

I-87016W Specifications

Strain Gauge Input	
Input Channels	***2 differential***
Resolution	***16bit***
Input Type	***+/- 15mV, +/- 50mV, +/- 100mV*** ***+/- 500mV, +/- 1V, +/- 2.5V, +/- 20mA***
Strain Gauge Type	***Full-Bridge, Half-Bridge, and Quarter-Bridge***
Input Impedance	***> 400k Ohms (Voltage)*** ***125 Ohms (Current)***
Sampling Rate	***10samples/second***
Accuracy	***+/- 0.05% of FSR***
Excitation Voltage Output	
Output Channel	***1***
Excitation Output Range	***0 ~ +10 V_{DC}***
Max. Output Current	***80 mA***
Accuracy	***+/- 0.05% of FSR***

Digital Output	
Output Channels	***2 (Sink)***
Output Type	***Isolated Open-Collector***
Load Voltage	***+5 ~ +50 V_{DC}***
Load Current	***700 mA/Channel max.***
Digital Input	
Input Channels	***2***
ON/OFF Level	***3.5 ~ 50 V_{DC}/1 V_{DC} max.***
Input Impedance	***10k Ohms, 0.66W***
Event Counter	***Frequency 50 Hz max., 16bit***
System	
ESD Protection	***+/- 4 kV for each terminal***
Isolation Voltage	***3000V_{DC}***
Power Consumption	***2.5W max.***

I-87016W Pin Assignment

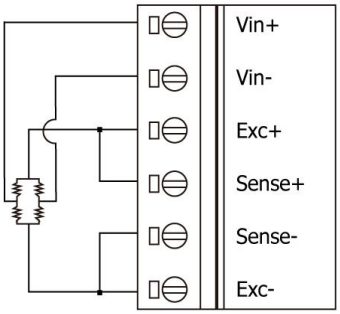


Terminal No.	Pin Assignment
01	Vin0+
02	Vin0-
03	Iin0-
04	Vin1+
05	Vin1-
06	Iin1-
07	Exc+
08	Sense+
09	Sense-
10	Exc-
11	Ext.PWR
12	DO0/LO
13	DO1/HI
14	DI0/EV
15	DI1/EV
16	Ext.GND

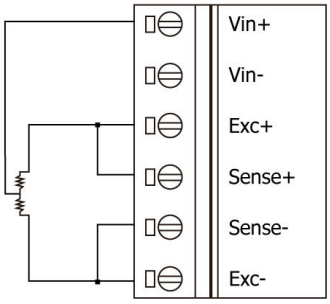
I-87016W Wire Connection Type

Bridge Sensor/ Load Cell/Strain Gauge

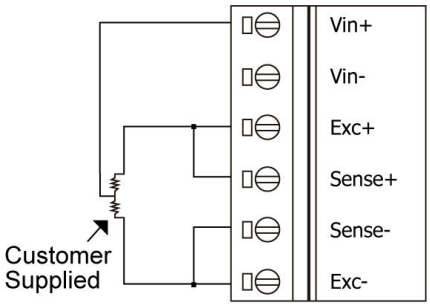
Full-Bridge



Half-Bridge

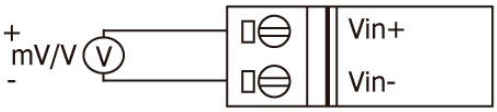


Quarter-Bridge

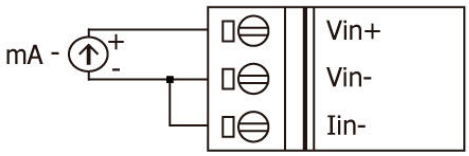


Analog Input

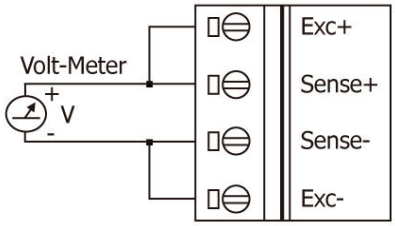
Voltage Input



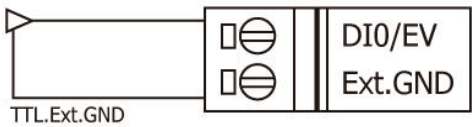
Current Input

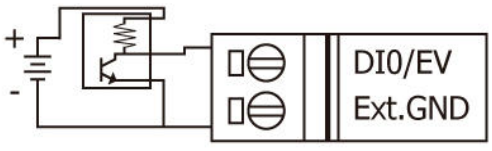


Analog Output



Digital Input





Digital Output