

# Load Cell Amplifier

WPC Systems Ltd.

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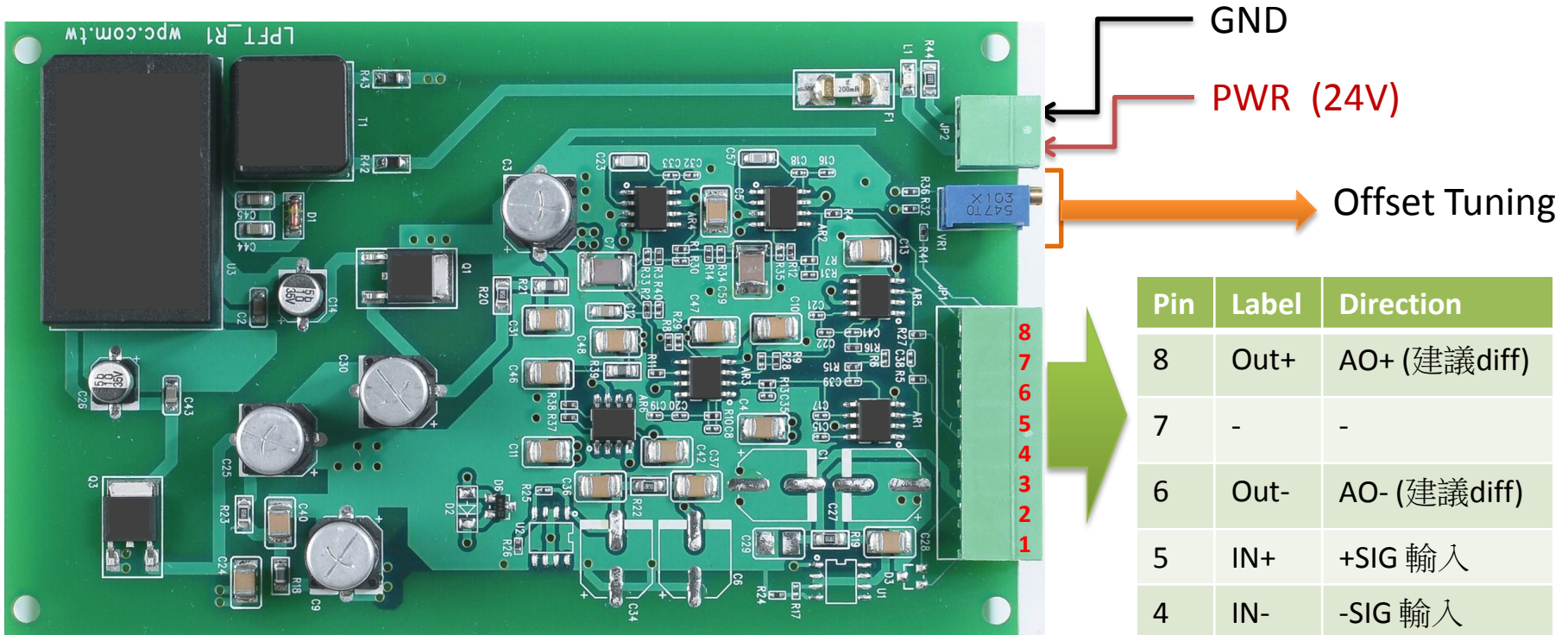
# Outline

1. Signal connection
2. Signal connection
3. Connection diagram

# 1. Specification

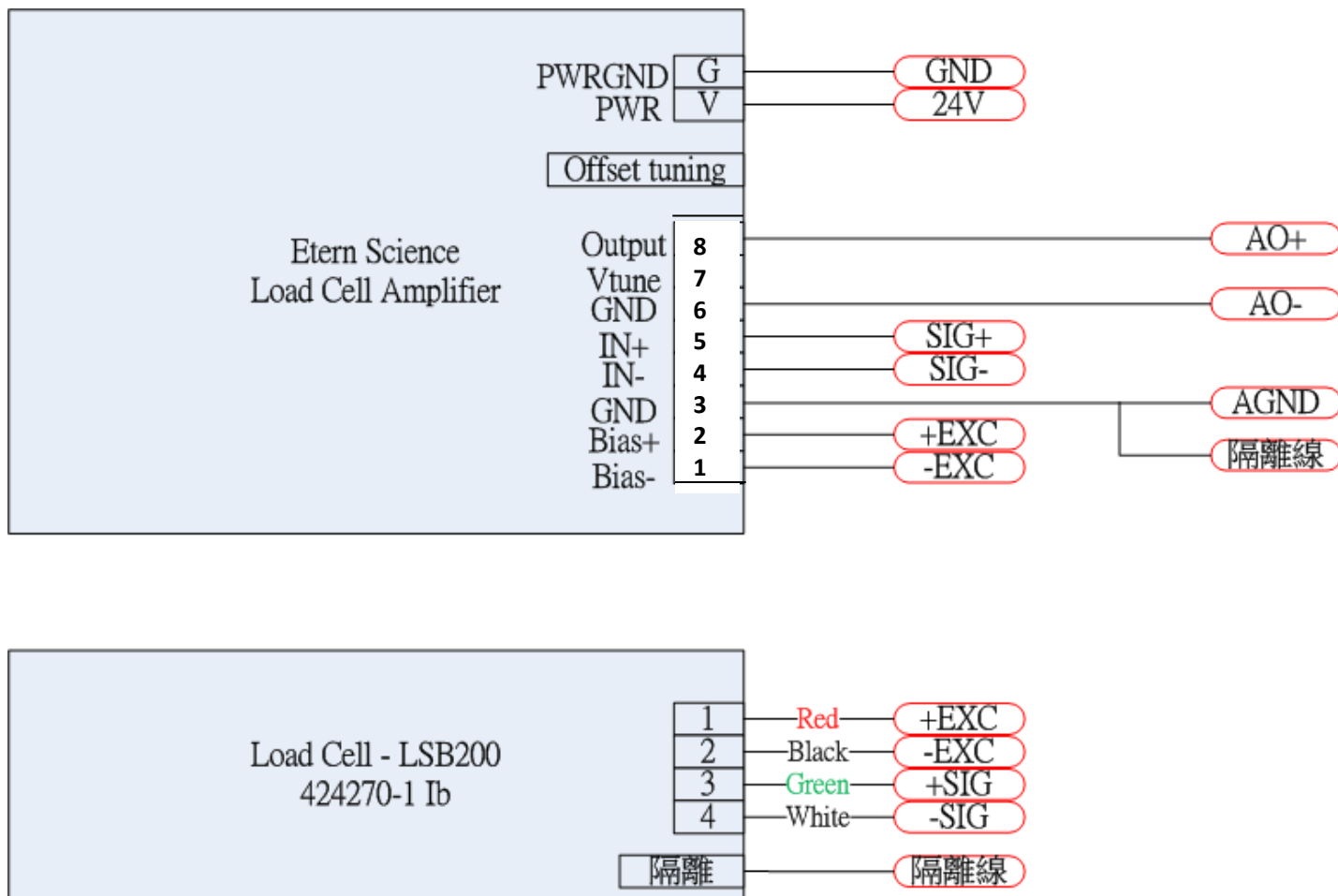
- Excitation voltage: 5V
- Gain: 1000
- Bandwidth: 9kHz
- Noise level
  - RMS: 2mV
  - P2P: 10mV

# 2. Signal connection



Pin	Label	Direction
8	Out+	AO+ (建議diff)
7	-	-
6	Out-	AO- (建議diff)
5	IN+	+SIG 輸入
4	IN-	-SIG 輸入
3	GND	AGND ; 隔離
2	Bias+	+EXC
1	Bias-	-EXC

# 3. Connection diagram



# Appendix A

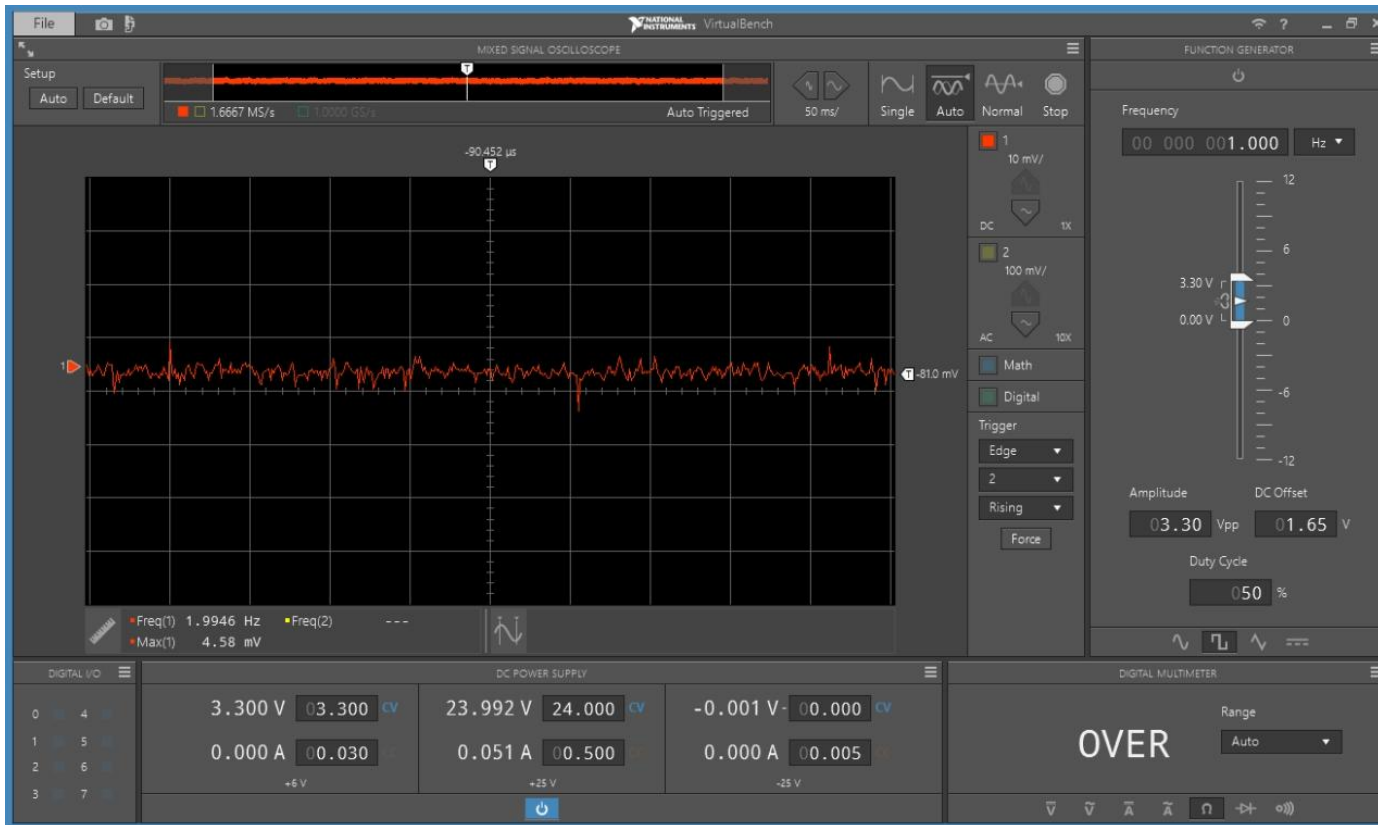
A1. Noise level

A2. 壓力量測

A3. 實驗圖

A4. Load Cell Spec

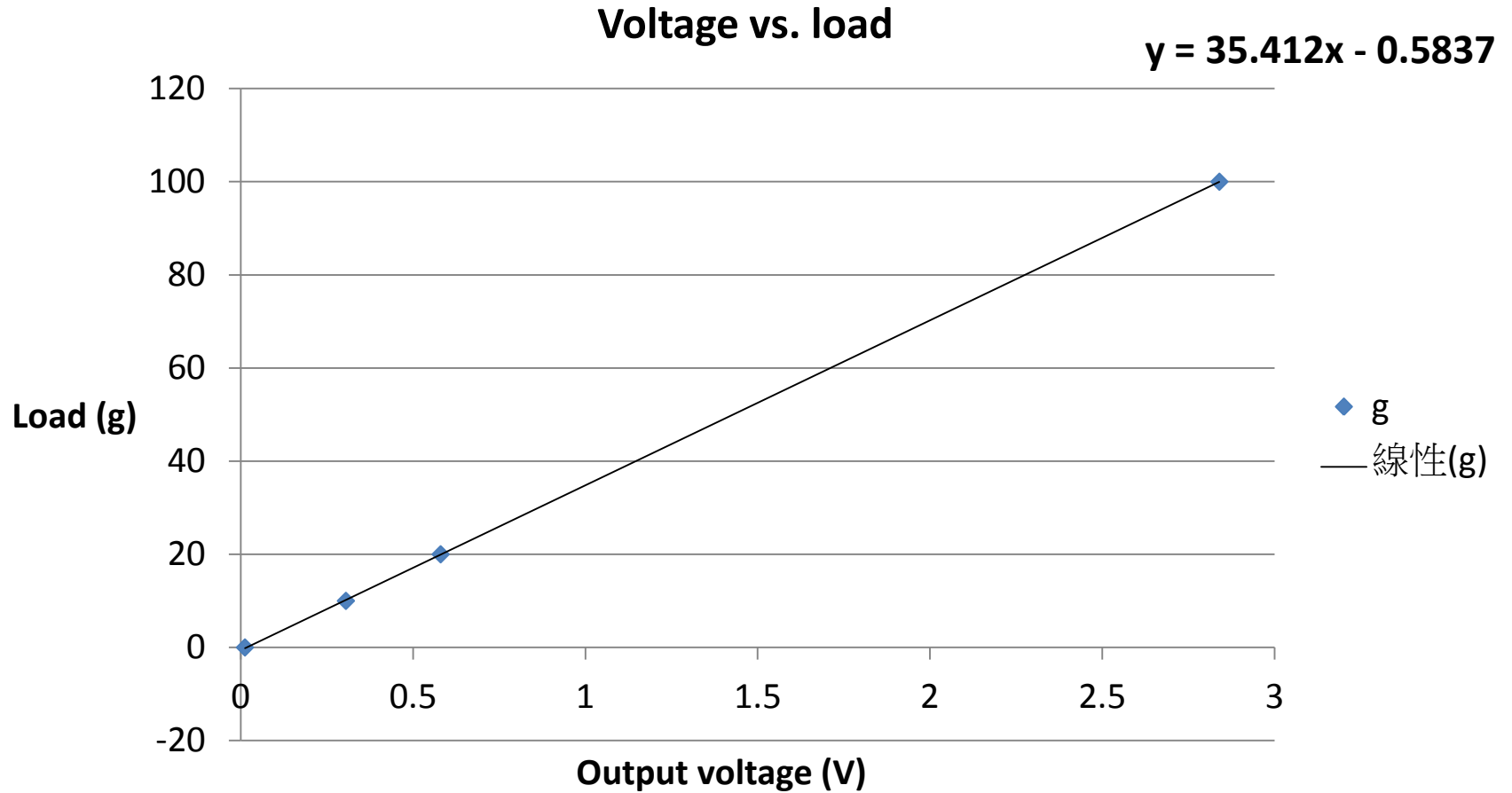
# A1. Noise level



示波器設定：  
Time：50ms/div  
Range：10mV/div

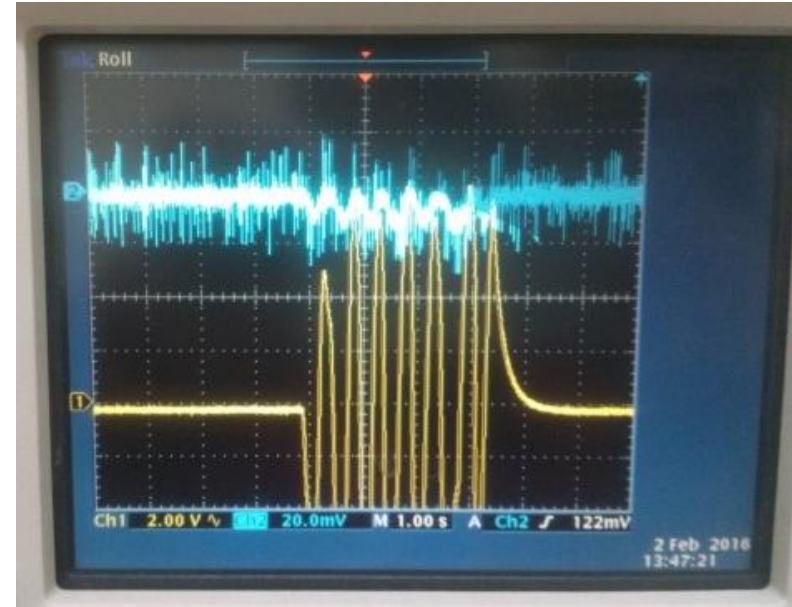
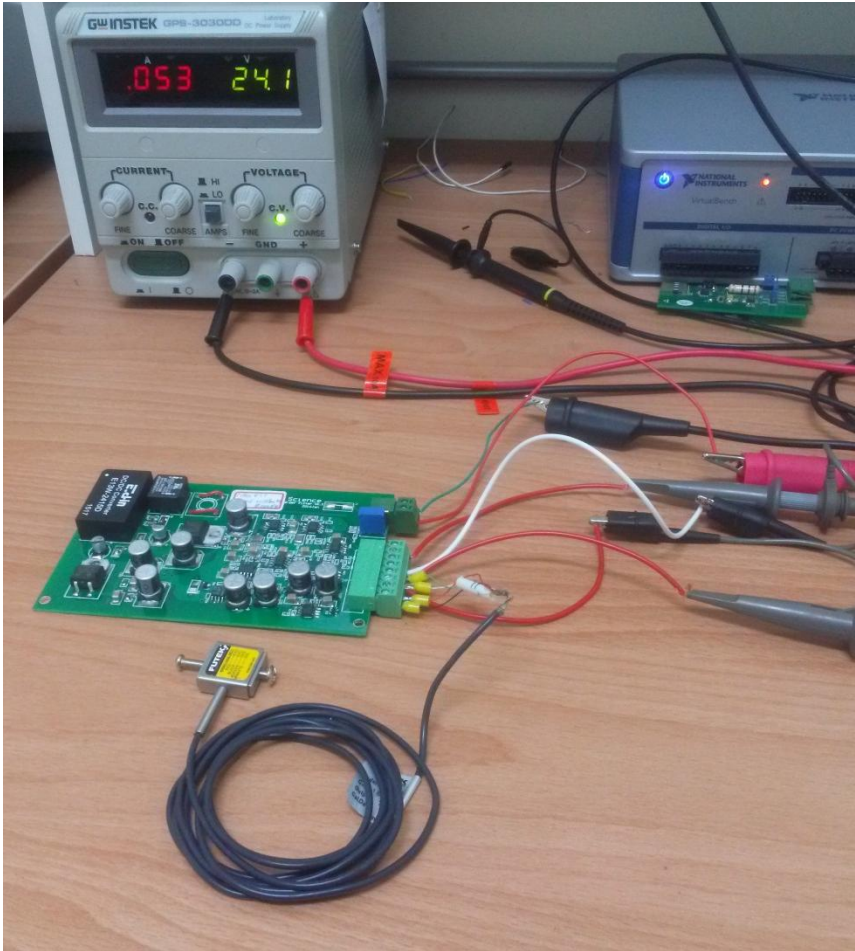
約5-10mV的雜訊

# A2. Correlation





# A3. Simple test



Blue: Before amplification  
Yellow: After amplification

# A4. Load Cell Spec

## Miniature S Beam Load Cell



(View A)



(View B)



(View C)



(View D)



Featured Video



LSB200 Gallery

**Model: LSB200-FSH00101**

**Cap: 1 lb**

**Model:**

LSB200 , 1 lb , JR S-Beam Load Cell , Standard ,  
Material - 2024-T4 , M3x0.5-Thread , Overload  
Protection , 29 Awg 4 Conductor Spiral Shielded  
Silicone Cable , 5 ft Long , "No Risk Life Time  
Warranty"

[Review Product Description](#)

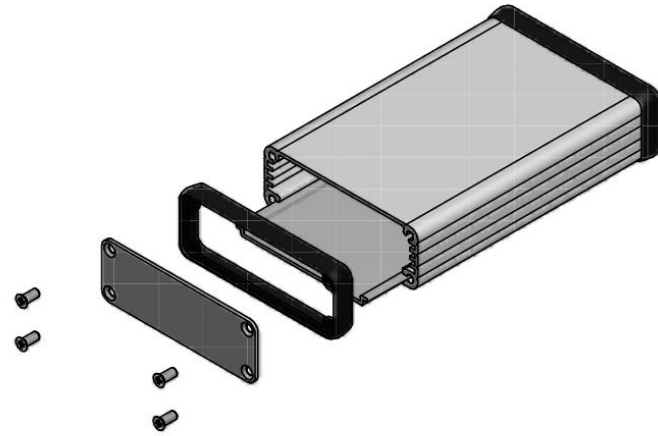
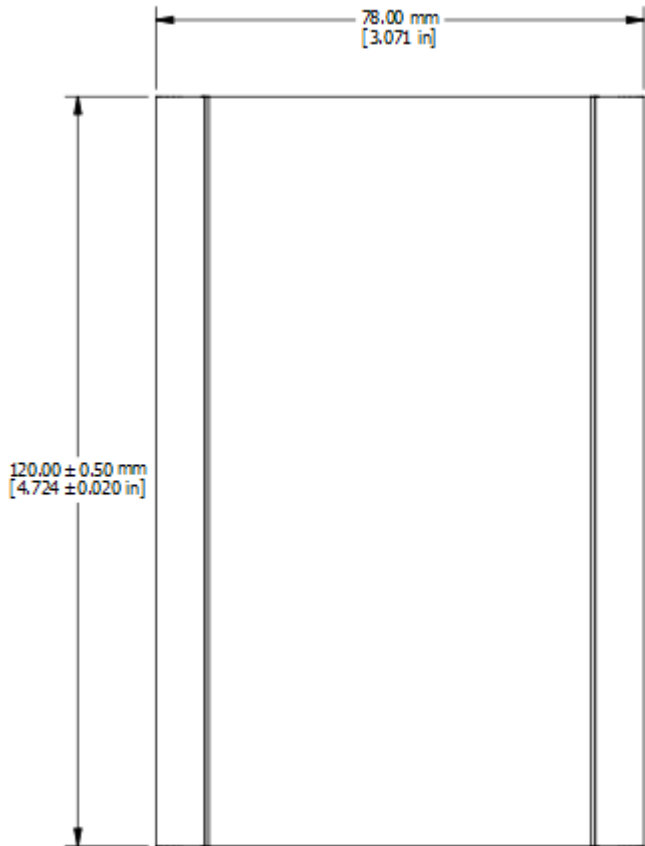
In Stock



<http://www.futek.com/product.aspx?stock=FSH00101&acc2=acc>

NAME	MIN	TYP	MAX	UNIT
<b>CHANNEL 1</b>				
Compensated Temperature ( ? )	60		160	F
Excitation ( ? )	1		10	Vdc
Hysteresis ( ? )	-0.1		0.1	% of R.O.
Input Resistance		350		Ohms nom.
Insulation Resistance	500			Mohms @ 50 Vdc
Nonlinearity ( ? )	-0.1		0.1	% of R.O.
Nonrepeatability ( ? )	-0.05		0.05	% of R.O.
Operating Temperature ( ? )	-60		160	F
Output Resistance		350		Ohms nom.
Safe Overload ( ? )			1000	% of R.O.
Temperature Shift Span ( ? )	-0.02		0.02	% of Load/F
Temperature Shift Zero ( ? )	-0.01		0.01	% of R.O./F
Zero Balance ( ? )	-3		3	% of R.O.
Capacity			1	lbs
Rated Output ( ? )		2		mV/V nom. ( ? )
Calibration Excitation		5		Vdc

# Dimensional drawing



EXPLODED ASSEMBLY VIEW

