



SPECIFICATIONS

GENERAL

Data Logging	21k points
Profile Storage	14 profiles
Sampling Rate	5-4800 SPS
Bandwidth (Hz)	Sampling Rate (SPS) / 4
Internal Resolution	24 bits
Resolution (Noise Free)	See Chart on Page 3
Integrated Digital Filter	50 Hz/60 Hz Rejection (120 dB)
Weight	1.85 lb (840 g)
Internal Shunt Resistance Value	150 kOhm
Readout Nonlinearity	± 0.005% of FSR
IP Rating	IP64

ENCODER INPUT

Supply Voltage	4.75 VDC
Encoder Input	Quadrature Leading and Lagging Pulse (TTL)
Speed Measurement	Up to 150k Pulses Per Second
Angle Measurement (α)	Up to 10k Pulses Per Rotation (PPR)
Angle/Speed Measurement (Update Rate)	100 ms

STRAIN GAUGE mV/V INPUT

Bridge Excitation	Precision 5.000 VDC
Standard Input Range	± 2 mV/V (factory default)
Optional Input Range	Up to ± 500 mV/V
Min. Bridge Resistance	30 Ohm
Reading Error**	± 0.15% of 2 mV/V

VOLTAGE INPUT

Standard Input Range	±12 VDC
Reading Error**	± 0.06% of 10 VDC

CURRENT INPUT

Standard Input Range	0-30 mA
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OUTPUT

Analog Voltage	0-5 or ±5 VDC*
Minimum Load Impedance (Voltage)	10 kOhm
Analog Current	0-20, 4-20, 0-25, 5-25 mA*
Maximum Load Impedance (Current)	40 Ohm
2 Individual Relay Outputs	110 V/100 mA max, 1 mS response time
External Supply Output	24 VDC @ 100 mA max
USB	Digital Packetized Data
ASCII Output Update Rate	5 SPS

CONFORMITY

RoHS	EU 2015/863
CE	EN55011; EN61326-1
UN38.3	ST/SG/AC.10/11/Rev.7

*Refer to IHH500 User Manual for conditions on analog output bandwidth.

**When no system calibration is performed.

FEATURES

- Speed/Power Measurement
- Bridge Resistance Measurement
- Keypad Options (Track/Hold, Peak/Valley Reset, Unit, Tare/ Gross, Shunt, Battery, Display, Menu)
- First Peak/First Valley Feature
- User Friendly Navigation Menu
- Shunt Calibration
- Universal Unit Conversion
- Supports IEEE1451.4 Standard (TEDS Templates 30 & 33)
- USB Output
- ASCII Stream Output
- Selectable Voltage and Current Output Configuration

LCD

- 16 × 4 character LCD with Selectable Height (0.18 [4.75] and 0.49 [12.55])
- 6 Digit Display Plus Sign and Decimal Point or 7 Digit Plus Sign Depending On Application
- Auto Power-off
- Brightness and Contrast Adjustment

IMPORTANT NOTE: ONLY CONNECT DEVICE TO USB 2.0 PORT

Sensor Solution Source

Load · Torque · Pressure · Multi-Axis · Calibration · Instruments · Software

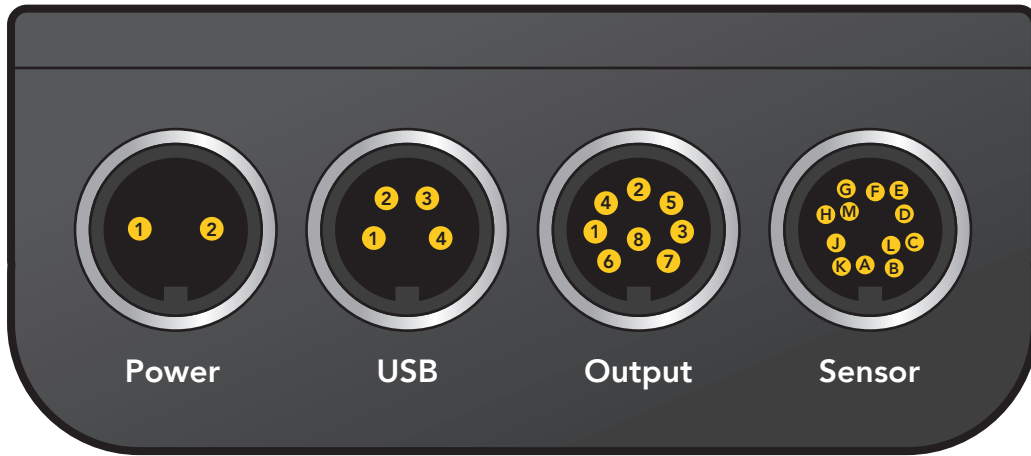
www.futek.com



RoHS



CONNECTORS & WIRING



POWER CONNECTIONS

PIN	SYMBOL
1	12V
2	Ground

Note: These pins are not polarity sensitive.

USB PORT CONNECTIONS (COMPATIBLE WITH USB 2.0 ONLY)

PIN	SYMBOL
1	VBUS
2	-D
3	+D
4	GND

OUTPUT CONNECTIONS

PIN	SYMBOL	DESCRIPTION
1	IDAC	analog current output signal
2	REFERENCE	analog voltage output return
3	+R1	solid state relay 1 (positive)
4	VDAC	analog voltage output signal
5	+R2	solid state relay 2 (positive)
6	GND	analog current output return
7	-R1	solid state relay 1 (negative)
8	-R2	solid state relay 2 (negative)

SENSOR CONNECTIONS

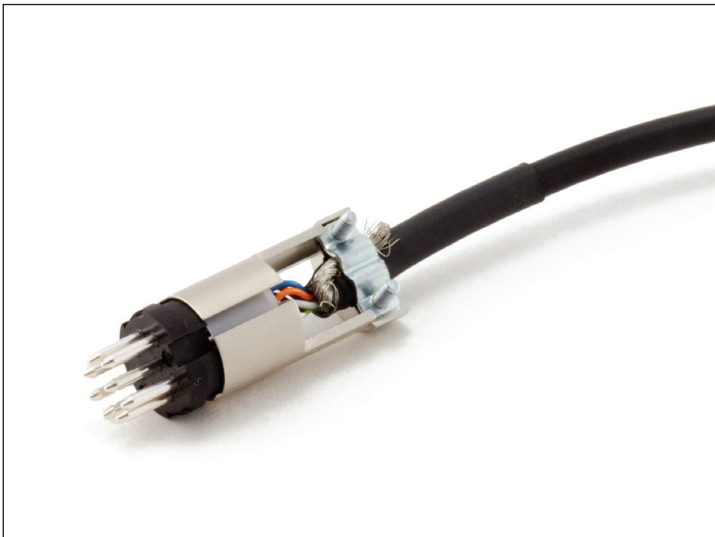
PIN	SYMBOL	DESCRIPTION
A	+E	+Excitation
B	+S	+Signal
C	-E	-Excitation, TEDS return
D	-S	-Signal
E	TEDS_IO	TEDS Data
F	24_OUT	24V output
G	GND_OUT	Ground/Shield
H	5_OUT	5V Output
J	-V	-V and -mA Amplified Input Connections
K	+V	+V and +mA Amplified Input Connections
L	PLEAD	Leading pulse from sensor (Elite Version Only)
M	PLAG	Lagging pulse from sensor (Elite Version Only)

Note: Cable should be connected to pin G, ground, and should be grounded on one end, either the sensor side or the IHH500 connection side.

CONNECTORS & WIRING

CONNECTORS			
#	TYPE	BINDER	ITEM #
1	POWER CONNECTOR	09 0104 99 02	
	MATING CONNECTOR	99 5101 00 02	FSH03569
2	USB CONNECTOR	09 0112 99 04	
	MATING CONNECTOR ³	99 5109 00 04	FSH03570
3	OUTPUT CONNECTOR	09 0174 99 08	
	MATING CONNECTOR ²	99 5171 00 08	GOD02974
4	SENSOR CONNECTOR	09 0132 90 12	
	MATING CONNECTOR ²	99 5129 00 12	GOD02975

For wiring diagram instructions please [review the product manual](#).



Note: Shield should be connected to cable clamp of binder cable assembly when connecting on instrument side. Sensor cable shield connections should be grounded on one end, either the sensor side or the instrument side, to avoid potential ground loops.

SAMPLING RATE		
SAMPLES PER SECOND (SPS)	mV/V RESOLUTION	mA AND VDC INPUT RESOLUTION
5	18.7	20.8
50	16.6	19.4
100	16.1	18.8
600	15.3	17.3
1200	14.8	16.9
2400	14.4	16.3
4800	13.9	15.3

