High Accuracy Digital Indicator (HADI) PD-4111

- Ultra-high accuracy, stability, and sensitivity in a small package
- True 6-wire system negates the effect of cable length
- Powered by a computer USB
- Output read and interpreted by computer
- Compatible with free Morehouse calibration software

Standard Features

- Offers very high accuracy of 0.1 µV/VSI
- Provides exceptionally high stability over time
- Data transmitted to a computer for display, interpretation, and storage
- Compatible with Morehouse free calibration software for using calibration coefficients at any polynomial degree
- Powered by the computer USB port, eliminating the need for an external power cable
- True six-wire system uses sense wires to negate the effect of wire length and wire temperature

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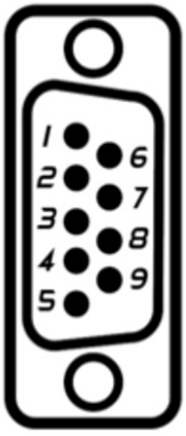
Technical Specifications

Specifications	High Accuracy Digital Indicator Model: HADI
Input	
Non-Linearity	< 0.002 % FS
Load Cell Excitation	5 VDC polarity shifting at 172 Hz
Load Cell Drive Capability	RLC 250-2000 ohm
Load Cell Wiring System	6 wire inclusive sense
Load Cell Input Range	± 4.5 mV/V equivalent to ± 16 mVDC
Load Cell Input Resolution	< 20 nV/increment
A/D Performance	172 updates/sec; 1000000 incr. resolution
Analog LP Filter Performance	3 Hz; 20 db/decade
Digital IIR LP Filter Performance	3-0.2 Hz; 4 db/decade; selectable in 6 steps
Averaging Period (Display Output)	5 updates/sec; variable rolling averaging
General I/O's	
Hardware Interfaces	RS485, 32 nodes or RS422 –full duplex
Data Transmission Rates	9.6 ; 19.2 ; 38.4 ; 57.6 ; 115.2 kB
Data Transmission Protocol	Get results or auto transmit
Output Data Rate	21-172 updates/sec
Power Supply	12-24 VDC max 100 mA (12-14 VDC if RLC<200 Ω)
Influences	
Temperature Effect on Zero	Typical 1 ppm/°K; Max 2 ppm/°K
Temperature Effect on Span	Typical 1 ppm/°K; Max 2 ppm/°K
Temperature Range	Operating: -10°C to +40°C; Storage -20°C to +60°C
Long Term Stability of Zero	Typical 5 ppm/year at room temperature
Relative Humidity	0-95 % non-condensing
EMI	10 V/m (1-2000 MHz)
General I/O Protection, All Pins	Reversed polarity, excess voltage and surge
Vibration	2.5 G operational; 5 G non-operational
Protection, Environment	IP40
Dimensions	
Height x Length x Width	L 144 mm incl. D9 connector; W 66.5 mm; H 28.5 mm
Weight	5.6 oz (158 g)
Standards	
CE EMC directive 89/336	EN 61326/A1 Table A.1. passed
Certified accuracy	Class III: 10000e; 0.1 µV/VSI

Wiring



PINOUT	
Connector Pin	Description
Pin 2	Excitation +
Pin 3	Excitation -
Pin 5	Signal +
Pin 6	Sense +
Pin 7	Sense -
Pin 9	Signal -