

## MiniLaser<sup>™</sup> Laser Level Monitor

## Non-Contact Laser Sensing Technology

Model 61 A

## **IDEAL FOR:**

Non-contact Level measurement Large Silos Bulk Solids Caustic Materials Radioactive Materials Industrial distance sensing Dimensional measurement Hot Steel Slabs Positioning and Anti-Collision Cranes Automated vehicles

### **ADVANTAGES**

**Machinery** 

Small Size and High Reliability Superior Interference Immunity Long Range and High Accuracy Up to 164' (50 m) without reflectors Over 394' (120 m) with surface reflectors Simple alignment using a visible laser beam

**Excellent Cost-Performance Ratio** 

**Outputs** 

Analog and Digital Bi-directional data-interface Profibus DP via UNIGATE Gateway

Simple setup from a PC or laptop Scaling in engineering units Feet, Inches, Meters, Centimeters, etc.

reet, inches, meters, centimeters, etc

Low Power Consumption < 1.0 W

Supply voltage range 10 VDC to 30 VDC

Laser Class 2 under DIN EN 60825-1:2001-11 Housing rated NEMA 4 (IP 65) The Minilaser Laser Level/Distance Measurement Instrument is designed for mobile and stationary level and distance measurement in harsh industrial environments.

The Minilaser operates on a comparative phase measurement principle. To achieve this, it emits a visible laser beam of different frequencies.

The target surface being measured returns diffusely reflected light that is then compared with a reference signal. Finally, a microprocessor uses the recorded phase shift and calculates the distance with to within an accuracy of 0.04" (1 mm).

The Minilaser distinguishes itself through a high precision as well as a big independence of the surface of the measured object. The red, well visible laser beam allows a simple alignment.

#### **HITECH** Technologies, Inc.

301 Oxford Valley Road, Yardley, PA 19067-7706 Technical support: 800. 755. 4507 Tel: 215. 321. 6012 Fax: 215. 321. 6067 - www.hitechtech.com

# Hitech

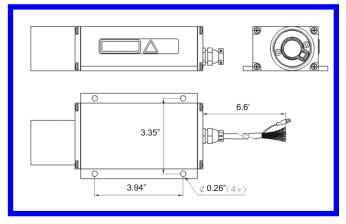
Technologies, Inc.

# MiniLaser<sup>™</sup> Laser Level Monitor

# **SPECIFICATIONS**

Model 61 A

Measuring range	7.9" (0.2 m) up to 164' (50 m) with normal reflective surfaces up to 394' (120 m) or more dependent on surface reflectance
Measuring accuracy	± 0.12" (± 3 mm) [ ± 0.079" (± 2 mm) under controlled conditions up to 98' (30 m)]
Resolution	0.004" (0.1 mm), user scalable
Measuring rate	typically 5 Hz (up to 10 Hz possible)
Laser Class	Laser Class 2 under DIN EN 60825-1:2001-11, 650 nm (visible)
Laser divergence	0.6 mrad
Operating temperature	+14 °F (-10 °C) up to +122 °F (+50 °C)
Storage temperature	-4 °F (-20 °C) up to +158 °F (+70 °C)
Data interface	RS232/RS422 (2400, 4800, 9600, 19200, 38400 Baud, ASCII, 8N1 Programming with Windows terminal program (such as; HyperTerminal) Programmable automatic start of measurement after switching on
Analog output	4 mA to 20 mA current output, [Load resistance max.: 500 ohm, Accuracy: ± 0.15%, Temp. drift: < 50 PPM/°C]
Digital switching output	programmable switching threshold and hysteresis, "high-side switch", rated for max. load of 0.5 A
Supply voltage	10 to 30 V DC, < 1 W
Enclosure Aluminium	NEMA 4 (IP 65)
Dimensions approx.	7.36" x 3.78" x 1.97" (187 x 96 x 50 mm) L x W x H in mm
Weight approx.	1.87 pounds (850 g)
Mounting	3.94" x 3.35" (100 x 85 in mm), 4 x M6 holes
	PERFORMANCE GUARANTEE



### PERFORMANCE GUARANTEE

Since 1986, every instrument sold by **HITECH** has been guaranteed to perform in the application it originally was engineered and recommended for. Our company policy remains the same, every product sold comes with a written performance guarantee.

Should the equipment be unable to perform satisfactorily in your application and we are not able to correct the problem, we will accept the instrument in return and issue full credit.

This performance guarantee is valid for 60 days. Thereafter, our standard limited two years factory warranty goes into effect.

Copyright HiTECH Technologies, Inc. 2004

### **HITECH** Technologies, Inc.

301 Oxford Valley Road, Yardley, PA 19067-7706 Technical support: 800. 755. 4507 Tel: 215. 321. 6012 Fax: 215. 321. 6067 - www.hitechtech.com