



WEIGHING SOLUTIONS FROM MSI

MSI Clevis Load Pin Sensors

Integrated Solutions for Overhead Weighing and Process Control

Measurement Systems International is the renowned leader and foremost designer and manufacturer of industrial crane scales and overhead weighing solutions. In addition to a comprehensive crane scale product line for below the hook weighing solutions, MSI offers a broad cache of integrated designs where below the hook installations are prohibited due to lack of headroom or other application constraints.

A key component for MSI's integrated overhead weighing solutions is the Clevis Load Pin Sensor. Typically, designed and manufactured specific to each integrated solution, the MSI load pin is strictly industrial grade. Each load pin design is precision machined from 17-4 stainless steel

for safety, strength and corrosion resistance. Each strain gage location is precisely calculated and correctly placed in the optimum concentrated stress area of each installation. This MSI applied engineering process ensures the most efficient and accurate performance for each specific installation.

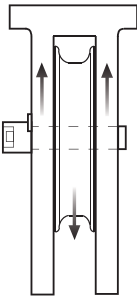
MSI load pin designs apply only internally mounted strain gages for complete protection from the outside environment. To ensure the highest level of accuracy, performance and quality, each load pin is internally balanced and temperature compensated.

The MSI load pin is a key system component toward providing the highest quality

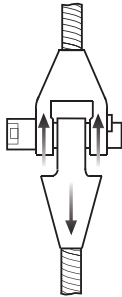
integrated overhead weighing solutions. Each pin is specifically designed to replace existing sheave or shackle pins and pins located in a Wire Rope dead-end.

To complete the integrated solution, MSI provides a comprehensive product line of instrumentation for output signal conditioning, load indicating and wireless transmission of data for integration with existing plant process control equipment.

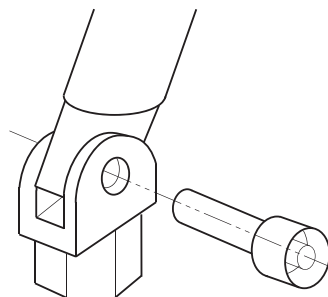
To learn more about MSI integrated solutions, please contact an MSI application specialist at 1-800-874-4320 and/or visit our website at www.msiscales.com



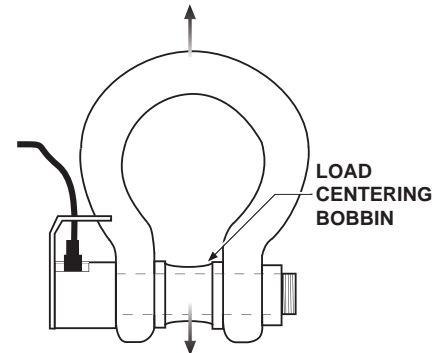
SHEAVE/PULLEY LOAD PINS (EQUALIZER/IDLER SHEAVE)



WIRE ROPE SOCKETS



CLEVIS PINS FOR SUPPORT LEGS



SHACKLE PINS

LOAD CENTERING BOBBIN

Standard Specifications*

Overload

- 200% without zero shift
- 500% without failure (minimum)

Bridge

- Full bridge 350 Ohm (nominal)
- *other bridge options

Excitation

- 12 V AC or DC (Maximum)

Output Signal

- 1 - 2-mv/V (Nominal)**

Non-Repeatability

- ± 0.15% FS (Nominal)

Non-Linearity

- ± 0.50% FS (Nominal)

Hysteresis

- ± 0.50% FS (Nominal)

Operating Temp Range

- 40 to +150 degrees Fahrenheit

Temp Effects

- 0.005% FS/ F (on Zero) (nominal)
- 0.008% load/ F (on Output) (nominal)

Zero Balance

- ± 2% FS (Nominal)

Material

- 17-4 Stainless Steel

Electrical Connection

- 6-Pin receptacle or built-in cable

Receptacle

- PTIH-10-6P

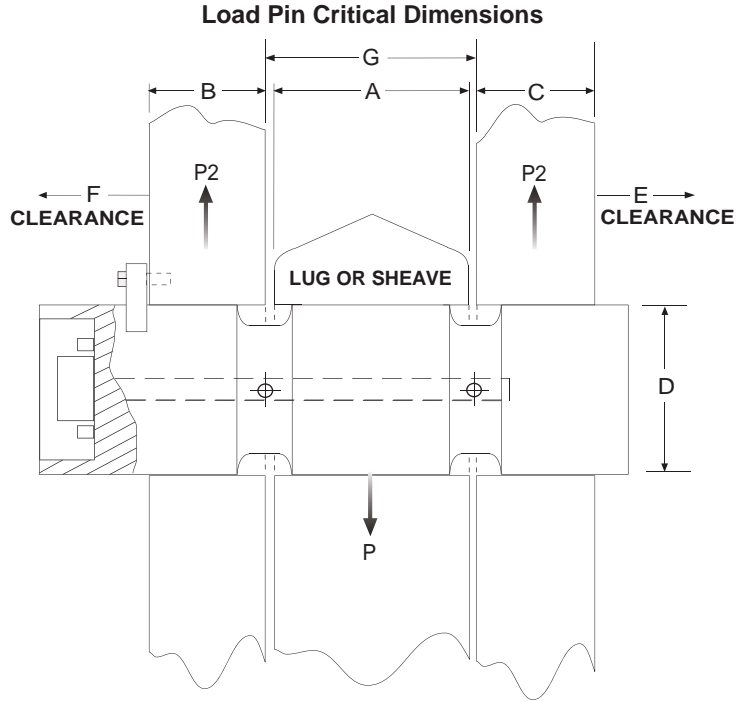
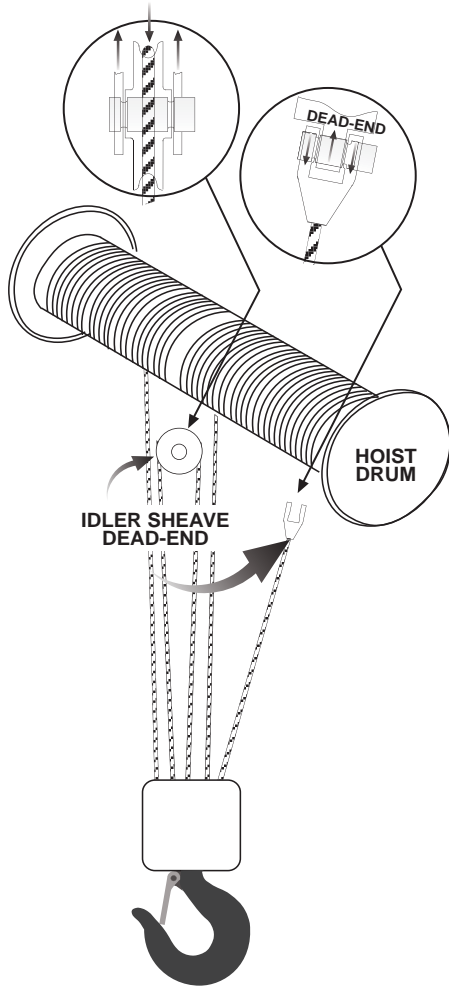
Cable

- #20 (26X34) AWG, rubber insulation, shielded, rubber jacket, 4 conductor (Standard Cable)

* Custom Load Pin design performance and specification may vary with design requirements.

** Exact output provided with calibration data. In place calibration check is recommended.

LOAD PIN QUESTIONNAIRE



Load Pin Data	
A= _____	in/mm
B= _____	in/mm
C= _____	in/mm
D= _____	in/mm
E= _____	in/mm
F= _____	in/mm
G= _____	in/mm
Load Pin Capacity: _____	lb/kg
Hoist/Crane: _____	
Capacity: _____	
Reeving: _____	
Number of Sheaves: _____	
Name: _____	
Company: _____	
Phone: _____	

Cable Interface Options	
<input type="checkbox"/> End-Mounted Cable	
<input type="checkbox"/> End-Mounted Connector	
<input type="checkbox"/> Side Mounted Cable	
<input type="checkbox"/> Side/Bottom Mount Connector	
<input type="checkbox"/> Recessed Connector	

"We weigh quality first."

