



## Standard Features

- Customized for individual integrated solutions where it will be permanently installed to monitor loads and overloading protection. Machined from 17-4 stainless steel ensures safety, strength and corrosion resistance.

(Contact MSI for application consultation)

For most overhead weighing applications, traditional scales are an ideal solution. However, applications with limited to no headroom require specialty equipment beyond even reduced-height or low-profile crane scales.

One such solution is an MSI load pin sensor. A load pin sensor is a type of load cell that directly replaces clevis, pivot, normal shaft or equalizer pins. Load pin sensors are designed to be permanently installed, so they can continuously monitor vertical or horizontal tension. An integrated load pin provides load monitoring and overload protection without impacting headroom to promote safety and to prevent costly equipment damage.

Rice Lake's industry leading engineers design and manufacture custom load pin sensors for any application. Every load pin is constructed from stainless steel for safety, strength (minimum 5:1) and corrosion resistance.

To receive a quote for a load pin sensor, complete the load pin questionnaire on page 176 or online at [www.ricelake.com/questionnaires](http://www.ricelake.com/questionnaires). For further assistance, contact an MSI overhead weighing specialist.

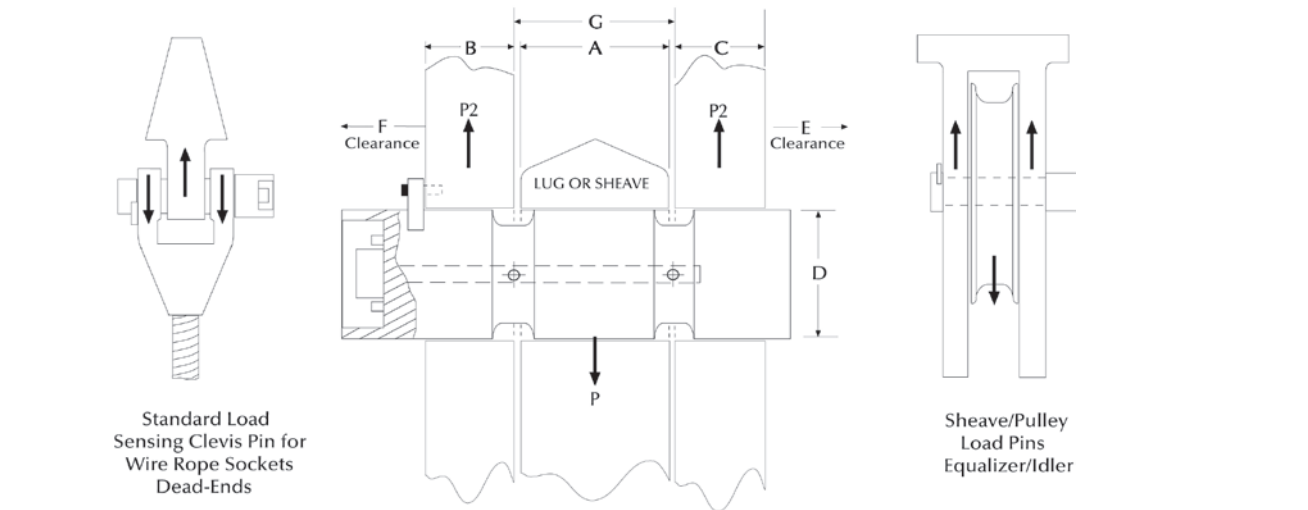
# MSI Load Pin Questionnaire

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Phone: \_\_\_\_\_

## LOAD PIN CRITICAL DIMENSIONS



A=Width	B=Width	C=Width	D=Diameter	E=Clearance	F=Clearance	G=Width
inch	inch	inch	inch	inch	inch	inch

NOTE: Minimum clearance between A and G is 0.0625 inch

## LOAD PIN DATA

Lube port: ☐Yes ☐No \_\_\_\_\_ # of exits

Hoist capacity: \_\_\_\_\_ tons

Parts of wire rope: \_\_\_\_\_

Sensor capacity: \_\_\_\_\_ tons

Safety factor: ☐3:1 ☐5:1 ☐7:1 ☐10:1

Application: \_\_\_\_\_

Accuracy requirement: \_\_\_\_\_

Temperature requirement: \_\_\_\_\_

Output requirement: \_\_\_\_\_

Material testing requirements: \_\_\_\_\_

Load vector orientation/alignment:  
☐← ☐→ ☐↑ ☐↓

## CABLE CONNECTIONS

End-mounted cable:

End-mounted connector: (standard)

Side-mounted cable:

Side-mounted connector:

Recessed connector:

Sensor's cable length: \_\_\_\_\_ feet

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Standard Features

- Integrates between a crane block and lifting equipment to provide force measurement for lifted items. This ideal integration for cranes features a 7:1 safety factor for compliance with industrial and military safety requirements.

## Options

(Contact MSI for application consultation)

- Crosby® top and bottom shackles

## Specifications

### Full Scale Output:

0.8 mV/V

### Output Resistance:

2,000 ohm

### Input Resistance:

1,500 ohm

### Material/Finish:

4340 steel

### Connector Pin Out:

A: EX +  
B: Sig +  
C: Sig —  
D: EX —

### Accuracy:

0.1% sensor accuracy

## Part Number/Price

Part #	Description	Price
181907	2 K 7200 style load cell only	Consult
181908	5 K 7200 style load cell only	Consult
181909	10 K 7200 style load cell only	Consult
178093	25 K 7200 style load cell only	Consult
178094	50 K 7200 style load cell only	Consult
181910	100 K 7200 style load cell only	Consult

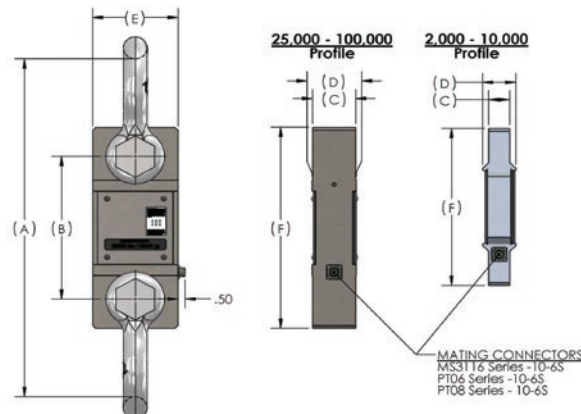
Contact factory for higher capacities

## Options/Accessories

Part #	Description	Price
165978	Load cell to MSI-7001 interface cable, 6.5 ft	\$345.00
165979	Load cell to MSI-7001 interface cable, 10 ft	\$365.00
165990	Load cell to MSI-7001 interface cable, 25 ft	\$460.00
134505	Load cell mating cable to bare wires, 10 ft	\$210.00

## Dimensions

Capacity (lbs)	P/N	Load Cell Material	(A) Headroom Loss	(B) C-C Length	(C) Lug Thk	(D) Body Thk	(E) Body Width	(F) Body Length	Lug Hole	Crosby Shackle
2,000	181907	Aluminum	13.50 in	8.00 in	0.99 in	2.13 in	4.50 in	9.75 in	0.78 in	3-1/4 T 151357
5,000	181908	Aluminum	13.50 in	8.00 in	0.99 in	2.13 in	4.50 in	9.75 in	0.78 in	3-1/7 T 151357
10,000	181909	Aluminum	16.13 in	8.50 in	1.35 in	2.13 in	5.37 in	10.75 in	1.05 in	6-1/2 T 151355
25,000	178093	Steel	22.39 in	9.26 in	2.24 in	2.24 in	4.80 in	12.76 in	1.67 in	17 T 141992
50,000	178094	Steel	25.74 in	9.76 in	2.74 in	2.81 in	5.43 in	13.76 in	2.05 in	25 T 151356
100,000	181910	Steel	28.49 in	10.74 in	3.09 in	3.09 in	6.86 in	15.74 in	2.30 in	55 T 146336



# MSI Clamp-On

Load Cell



## Part Number/Price

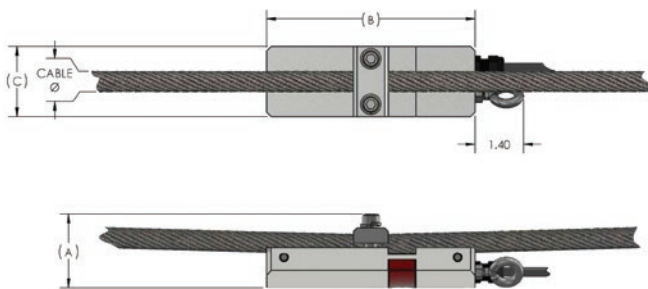
Part #	Description	Price
179080	Load Cell Assembly Clamp-On for 3/8 to 1/2 in wire rope	\$790.00
179082	Load Cell Assembly Clamp-On for 9/16 to 3/4 in wire rope	\$940.00
188816	Kit with SCT-2200 for 3/8 to 1/2 in wire rope	\$1,400.00
188817	Kit with SCT-2200 for 9/16 to 3/4 in wire rope	\$1,550.00

Larger diameter clamp ons available - call for pricing

## Dimensions

Cable Range	Part #	A	B	C
3/8 to 1/2	179080	Cable + 1.70	6.00	2.00
9/16 to 3/4	179082	Cable + 1.67	6.00	2.00

\*8mm cable can be used with PN 179080



## Standard Features

- A durable solution for measuring wire rope tension and preventing overloads for cranes and hoists. Available in two envelopes for accommodating the most common wire ropes. Weight-based setpoints can provide the operator alerts and safety shut-offs based on unsafe load conditions.

## Options

(Contact MSI for application consultation)

- Custom sizes available on request
- Pair with an SCT transmitter for basic safety functions

## Specifications

**System Accuracy of Calibrated Capacity:**  
3 to 5%

**Output Resistance:**  
350 ohm

**Material/Finish:**  
4340 steel, zinc plated

**IP Rating:**  
IP68

**Cable Length:**  
20 ft integral cable with blunt end termination

**Cable Color Code:**  
Red +Excitation  
Black -Excitation  
Green +Signal  
White -Signal



Optional SCT-2200 transmitter