

MSI Load Pin Sensors



Standard Features

- Internally gauged load pin
- Idler sheave or dead end pin preferred location
- Minimum 5:1 safety factor
- 17-4 stainless steel construction
- $\pm 1\%$ to 3% accuracy of hoist capacity
- -40°F to 140°F standard operating temperature (other temperature compensated ranges available)

A key component for MSI's integrated overhead weighing solutions is the Load Pin Sensor. Typically designed and manufactured specifically 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.

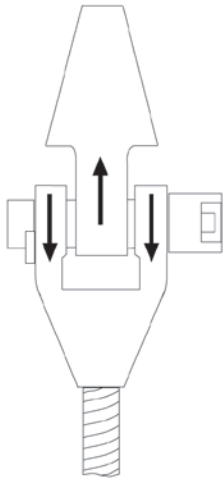
Each strain gauge location is precisely calculated and correctly placed in the optimum concentrated stress area of each installation. This MSI applied engineering process ensures the most efficient and accurate performance for each specific installation.

MSI load pin designs apply only internally mounted strain gauges for complete protection from the outside environment.

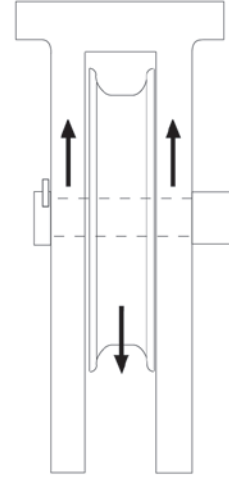
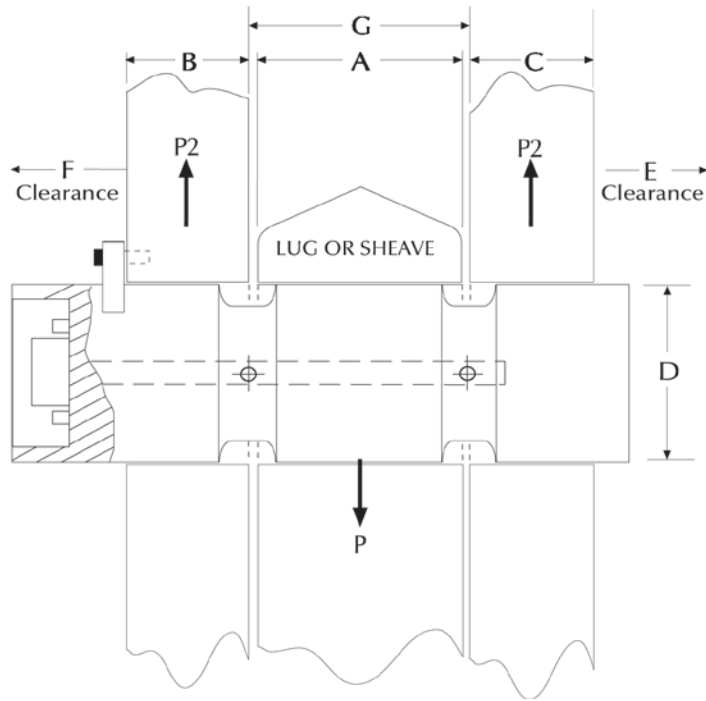
To receive a quotation for a load pin sensor to meet your application requirements, complete the load pin questionnaire also on the next page or online at www.ricelake.com or contact an MSI overhead weighing specialist for further application assistance.

MSI Load Pin Questionnaire

Load Pin Critical Dimensions



Standard Load Sensing Clevis Pin for Wire Rope Sockets Dead-Ends



Sheave/Pulley Load Pins Equalizer/Idler

Load Pin Data	
A=Width _____	Inch
B=Width _____	Inch
C=Width _____	Inch
D=Pin Diameter _____	Inch
E=Clearance _____	Inch
F=Clearance _____	Inch
G=Width _____	Inch
Lube Port <input type="checkbox"/> No <input type="checkbox"/> Yes _____	# of exits
Hoist Capacity _____	Tons
Parts of Wire Rope _____	
Sensor Capacity _____	Tons
Factor of Safety <input type="checkbox"/> 3:1 <input type="checkbox"/> 5:1 <input type="checkbox"/> 7:1 <input type="checkbox"/> 10:1	
Application _____	
Accuracy Requirement _____	
Temperature Requirement _____	
Required Output _____	
Material Testing Requirement _____	
Load Vector Orientation/Alignment <input type="checkbox"/> ← <input type="checkbox"/> → <input type="checkbox"/> ↙ <input type="checkbox"/> ↗	
Name _____	
Company _____	
Phone _____	
Note: Minimum clearance between "A" and "G" = 0.0625 inch.	

Cable Connections	
End-Mounted Cable	
End-Mounted Connector (standard)	
Side-Mounted Cable	
Side-Mounted Connector	
Recessed Connector	
Sensor's Cable Length _____	Feet
Comments _____	



230 W. Coleman St. • Rice Lake, WI 54868 • USA
 TEL: 800-874-4320 • FAX: 206-244-8470 • www.ricelake.com/msi

An ISO 9001 registered company © 2019 Rice Lake Weighing Systems PN 154086 10/19
 Specifications subject to change without notice.

MSI Tension Link Load Cell



Specifications

Input Resistance:

1,500 ohm

Output Resistance:

2,000 ohm

Full Scale Output:

0.8 mV/V

Connector Pin Out:

A: EX+

B: Sig +

C: Sig -

D: EX-

Accuracy:

0.1% sensor accuracy

Material:

4340 steel

Standard Features

- 4340 Steel construction
- Mil Spec connector
- 7:1 Safety factor

Additional Options

(Contact MSI for application consultation)

- Crosby® top and bottom shackles

Part Number/Price

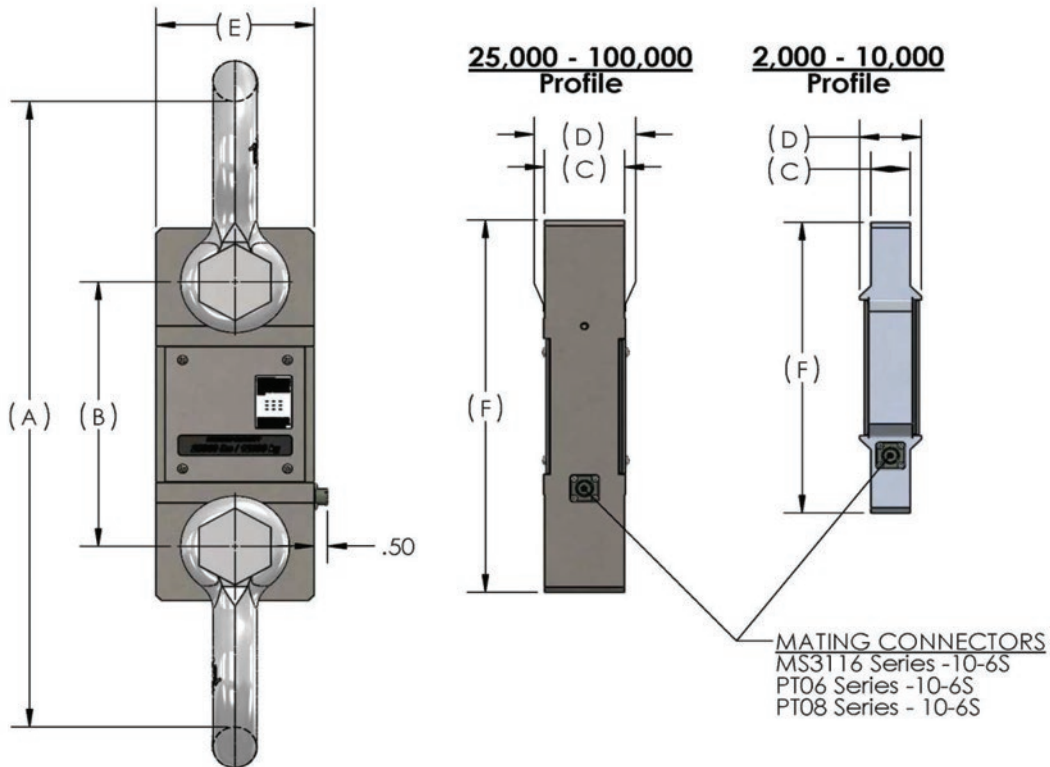
Part #	Description	Price
181907	2K 7200 Style Load Cell Only	Consult
181908	5K 7200 Style Load Cell Only	Consult
181909	10K 7200 Style Load Cell Only	Consult
178093	25K 7200 Style Load Cell Only	Consult
178094	50K 7200 Style Load Cell Only	Consult
181910	100K 7200 Style Load Cell Only	Consult
134505	Mating Cable Assembly, 10 ft	\$175.00

Contact factory for higher capacities

MSI Tension Link Load Cell

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



Specifications

System Accuracy of Calibrated Capacity:
3-5%

Material:
4340 steel, zinc plated

Output Resistance:
350 ohm

IP Rating:
IP68

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

Cable Length:
20 ft integral cable with blunt end termination



Optional SCT-2200 transmitter

Standard Features

- ETD 150 construction
- Accommodates up to 0.75 in wire rope size
- IP68
- Larger diameter clamp ons available - call for pricing

Options

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

Part Number/Price

Part #	Description	Price
179080	Load Cell Assembly Clamp-On for 3/8 to 1/2 in wire rope	\$710.00
179082	Load Cell Assembly Clamp-On for 9/16 to 3/4 in wire rope	\$840.00
188816	Kit with SCT-2200 for 3/8 to 1/2 in wire rope	\$1,260.00
188817	Kit with SCT-2200 for 9/16 to 3/4 in wire rope	\$1,400.00

Larger diameter clamp ons available - call for pricing

Dimensions

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

*8mm cable can be used with PN 179080

