



# Overhead Weighing Product Guide





Measurement Systems International (MSI) crane scale products have been popular for decades in industries from aerospace to iron and steel, and are available through Rice Lake Weighing Systems. MSI's comprehensive line of design-engineered products such as crane scales, tension

dynamometers, aircraft load monitoring instrumentation, RF wireless data acquisition and signal processing systems are sold throughout the world by a qualified, factory-trained, distribution network.

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## DYNAMOMETERS

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## Crane Scales



### MSI-4260M PORT-A-WEIGH

The MSI-4260M Port-A-Weigh crane scale is the most robust solution on the market for marine and industrial weighing. Able to capture weight with  $\pm 0.1\%$  accuracy, the NTEP Certified MSI-4260M features a 500% Ultimate Safety Factor to minimize the risk of accidents from overloading. A NEMA Type 4, IP66/67 aluminum enclosure stands up to moisture in marine and washdown environments. Sensitive electronic components are well-protected, including the MSI-4260M's sleek, vibrant LCD display.

### MSI-3460 CHALLENGER 3



MSI's latest instrumentation technology, the ScaleCore™ measurement module, is the central enhancement of the Challenger 3, bringing industry-leading weighing features of previous Challenger designs to a whole new level. The light-capacity Challenger 3 crane scale is commonly used in indoor shop and work center applications.

### MSI-4300 PORT- A-WEIGH PLUS



The MSI-4300 is an established crane scale for medium- to heavy-capacity and duty-cycle applications requiring a large LCD display. Featuring a marine-grade alloy enclosure that is ideal for fishing, shipyard and marine environments, the MSI-4300 Port-A-Weigh Plus endures season after season.

### MSI-4260 PORT-A-WEIGH



For medium- to heavy-capacity and duty-cycle needs, the MSI-4260 Port-A-Weigh has an established reputation as the industry standard in overhead weighing. ScaleCore technology brings this next-generation Port-A-Weigh to a new level of weighing class. MSI-4260 meets or exceeds all industrial safety requirements, including OSHA, ANSI and ASME, and is an economical choice for many bridge crane, foundry and in-process material handling needs. Common applications include general warehouse, shipping/receiving, bulk materials, pulp/paper, steel and other metals. Intrinsically safe models with FM and ATEX approvals are available.

### MSI-6260CS TRANS-WEIGH CELLSCALE RF



The MSI-6260CS is ideal for medium- to heavy-capacity and duty-cycle applications not requiring a local display. An economical solution for applications demanding remote RF weight indication and system control, MSI's Trans-Weigh CellScale RF brings heavy-duty performance with full communication capability. The MSI-6260CS can also be paired with additional CellScale crane scales for applications that require more than one pick point to attain a summed load.

### MSI-9300 PORT-A-WEIGH PLUS CELLSCALE RF



The MSI-9300 offers the ultimate choice in medium- to heavy-capacity and duty-cycle applications when a large, local 1.2-inch bright red LED display and remote RF connectivity is required. The MSI-9300 can also be paired with additional CellScale crane scales for applications that require more than one pick point to attain a summed load. The MSI-9300 is used as the master device to display the total load.

### MSI-9300HT HI-TORQUE PORT-A-WEIGH PLUS CELLSCALE RF



The MSI-9300HT offers a unique and robust high torque load train with a fixed hook for applications involving a powered rotating load block or attachment. The MSI-9300 is commonly used in forestry, steel coil and energy applications.





Dynamometers



## MSI-7300 DYNA-LINK 2



*Shown with optional  
Rugged Remote*

Constructed of high-quality, aircraft-grade aluminum, the battery-powered MSI Dyna-Link 2 is light and portable with NEMA Type 4/IP65-rated environmental protection. When integrated with ScaleCore technology, the Dyna-Link 2 offers advanced measurement capabilities in capacities ranging from 0.5 to 250 tons. MSI's Dyna-Link 2 meets or exceeds all safety design standards in the industry, with an ultimate safety factor of up to 7:1. The rugged, lightweight, Dyna-Link 2 is commonly used for load tests, rigging, crane and elevator certification as well as in the utilities industry.

## MSI DYNA-CLAMP CLAMP-ON TENSION METER

The MSI Dyna-Clamp clamp-on tension meter is safe and easy to use, with a built-in site window that ensures accurate placement. Unlike other tension meters, the Dyna-Clamp doesn't require as much manual force to engage the wire rope the operator is testing. An easy-turn power screw makes measuring wire rope tension simple and effortless, even in difficult environments. The Dyna-Clamp has a large, sunlight-viewable LCD display and accommodations for a safety strap.





## Indicator/Remote Displays



### MSI-8000HD RF INDICATOR/ RF REMOTE DISPLAY

The MSI-8000HD is the heavy-duty version of the reputable MSI-8000 RF handheld remote display. The milled anodized aluminum, IP68-rated enclosure is mountable in either a direct panel mount or optional tilt stand. Fully ergonomic with user-definable function keys and a bold six-digit one-inch display, operators will find the MSI-8000HD easy to use and read. Fully compatible with all MSI ScaleCore-based crane scales and dynamometers, the MSI-8000HD provides the utmost in versatility for any application.

### MSI-8000 RF REMOTE DISPLAY



The MSI-8000 is a full-featured, wireless, handheld remote display for operation with MSI-3460, MSI-4260 and MSI-7300. Compact and portable, the MSI-8000's NEMA Type 4/ IP65 industrial-grade enclosure makes it ideal for use in nearly any operating environment. The MSI-8000 operates on a license-free 2.4 GHz frequency with a typical application range exceeding 100 feet (30.48 meters), keeping the operator's safety and convenience in the forefront.

### MSI-8004HD INDICATOR/RF LED REMOTE DISPLAY



*Shown with optional red/  
green LED display*

The MSI-8004HD has all of the heavy duty versatility of the MSI-8000HD with the added benefit of extreme high visibility in indoor and outdoor applications. The MSI-8004HD features 1.5-inch high characters on its LED display. The display is available in either red or green allowing the controller to be clearly visible in many environments. The red/green display can be configured to change color based on weight and setpoint conditions, making the MSI-8004HD a natural fit for safety-critical industrial applications.

### SCT-2200 ADVANCED SERIESIGNAL CONDITIONING WEIGHT TRANSMITTER



The SCT-2200 is DIN-rail mountable within a cabinet or control panel, where it converts a load cell signal to analog output, serial output or a specific fieldbus protocol. Unlike many other signal transmitters, the SCT-2200 has its own 0.3-inch weight display, with annunciators for unit and weighing status, and pushbuttons for zero, tare and setpoint entry.





## MSI-9750A CELLSCALE RF PORTABLE INDICATOR

For optimal communication and control, choose the MSI-9750A handheld indicator for remote operation of MSI's CellScale crane scale models, including the MSI-6260CS, MSI-9300, MSI-9300HT and MSI-9000 CellScale. This RF wireless indicator/controller contains full-scale features to remotely monitor in-process material weighing through the multi-scale display and control panel. Add a bar code scanner through the serial port to quickly gather comprehensive data for the entire process.

## MSI-9850 CELLSCALE RF DIGITAL INDICATOR

This full-featured, industrial-grade indicator from MSI has a robust product ID and statistic storage capability. Internal setpoint relays maximize control, while serial and Ethernet outputs optimize data communication to a variety of CellScale devices.

## SCOREBOARDS AND REMOTE DISPLAYS

MSI scoreboards are an accessory of the ScaleCore and CellScale wireless weighing systems that provide remote indication of weight information. These wireless RF displays feature high-intensity red or green LED characters. Rice Lake's LaserLight2 remote display features super-bright LED display with non-glare lens to provide sharp seven-segment, six-digit characters that are easy to read. Mounting options include a flange tab which accommodates ¼-inch hardware for vertical surface or pole mounting, or VESA mounting bracket for increased versatility.

## 1280 ENTERPRISE™ SERIES INDICATOR

The 1280 Enterprise Series programmable indicator delivers uncompromising speed for today's operations and expansive options for tomorrow's requirements. A durable color touchscreen with a seven-inch or 12-inch LCD display integrates data with real-time analysis, enabling operators to optimize operations and leverage actionable information. Crisp visuals bring instant access to frequently used functions. Program multiple screens with custom graphics and softkeys for an interface that is designed for your process.



LaserLight 2  
Remote Display

MSI-9750A CellScale RF  
Portable Indicator



## Wireless Network Solutions

## MSI-9000 CELLSCALE WIRELESS WEIGHING SOLUTIONS

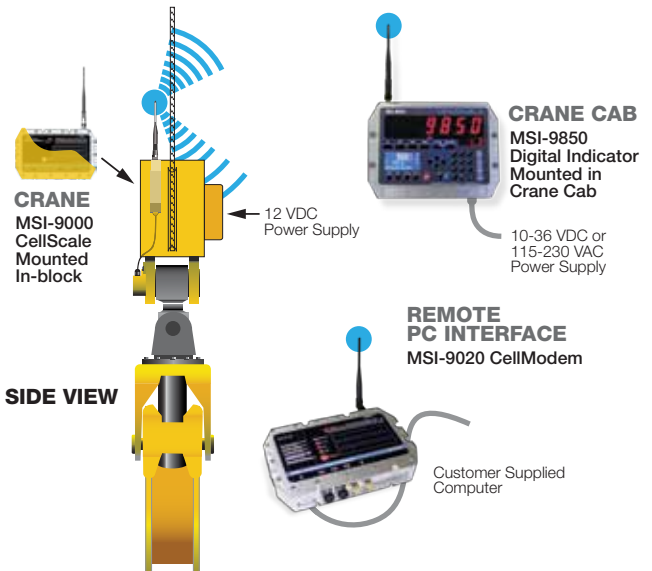
For industrial plant applications, the MSI-9000 CellScale is MSI's most innovative and technologically advanced product for wireless weighing and networked system solutions. The MSI-9000 functions as the central controller in a CellScale networked weighing system, combining advanced analog-to-digital processing with superior RF communications singly packaged in a NEMA Type 4/IP65 industrial grade enclosure.

## MSI-9020 CELLMODEM

The MSI-9020 CellModem is an accessory of the CellScale and wireless weighing systems. The CellModem receives and processes data wirelessly from a CellScale for interface directly to any serial connected device. Support is provided for connection to computers, scoreboards, printers and PLCs.

## TRANSEND™ AND 7000HD WIRELESS LOAD CELL INTERFACES

The TranSend family of wireless load cell interface transmitters and receivers are efficient communication devices that replace the need for traditional conduit. Compatible with a broad range of transmitting and receiving devices, TranSend is designed to work with ScaleCore-based products and its transmitters can interface with virtually any strain-gauged sensor. TranSend is available in single and multiple channel models with a variety of outputs including mV, analog and serial. TranSend exceeds communication application expectations with an operating distance of up to 300 feet line-of-sight.







Integrated Solutions



## CLEVIS LOAD PIN SENSORS

A key component for MSI's integrated overhead weighing solutions is the Clevis Load Pin Sensor. Each MSI load pin is strictly industrial-grade, designed and manufactured specifically to each application. MSI load pins are designed with only internally mounted strain gauges for ultimate protection from the outside environment. To ensure the highest level of accuracy, performance and quality, each load pin is internally balanced and temperature compensated.

## SHEAR WEB LOAD CELL



The Shear Web Load Cell is an integrated, low-profile load cell that eliminates headroom loss without sacrificing accuracy. With extensive crane hook-block integration possibilities, the load cell can be custom fit for use with existing equipment. To transmit load data, the load cell can be interfaced with a wireless RF transmitter to communicate with a digital weight indicator or handheld remote display. Reliable and durable, the Shear Web Load Cell is IP67 rated, zinc plated and constructed with 4340 alloy steel.

## MSI CLAMP-ON LOAD CELL



The MSI Clamp-on Load Cell is a durable solution for measuring wire rope tension, providing dependable overload detection and prevention for overhead cranes and hoists.

Available in two envelopes for accommodating most common wire ropes, 3/8-1/2 inch and 9/16-3/4 inch, the MSI Clamp-on installs quickly and easily to the wire rope dead end. The integral signal cable can be connected to a variety of detection device such as the MSI-8004 LED indicator or an advanced SCT weight transmitter. Weight-based setpoints can be used to communicate with crane electronics providing operator alerts and safety shut offs based on unsafe load conditions.

MSI  
TENSION LINK



The MSI Tension Link was designed for permanent installations and features a mil-spec connector and analog communications sensor to interface with weight transmitters and readout instrumentation, including the MSI-8004HD weight indicator, Rice Lake's SCT signal conditioning transmitters or MSI's TranSend® wireless load cell interface.

For current crane operators, the MSI Tension Link can be installed in lift chains or between the lifting apparatus and crane block to measure weight, as well as provide a safety indicator for overload and other conditions. The MSI Tension Link features a 7:1 safety factor for compliance with industrial and military safety requirements.





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