



WIRELESS WEIGHING FROM MSI

# MSI-9850 RF Digital Indicator

Network Solutions for Industrial Weighing and Process Control

### Product Description

The MSI-9850 RF Digital Indicator is the latest addition to the CellScale product family. Combined with one or more CellScale devices, the MSI-9850 functions as a wireless remote terminal that provides complete control over scale and data functions. Each MSI-9850 can log on to 64 different networks allowing it to serve multiple CellScales and/or MSI Crane Scales with simple one-button network/channel (sensor/scale) changes. All CellScale features are supported, including Inter-Network Radio Messaging, Data Logging, Totalizing and Statistics.

The MSI-9850 features a large primary weight display that is easily read from a distance and an information display to provide network/channel detail. The information display also supports multiple CellScale channels allowing users to display up to 8 simultaneously. With a touch of a button, users can choose which channel to view on the primary weight display. Operation is straightforward through the alphanumeric keypad.

The MSI-9850 can remotely calibrate the CellScale and provides a simple user interface to the advanced features of the CellScale. All calibration data is stored in the CellScale allowing any MSI-9850 to be used with a CellScale based wireless weighing system without recalibration. Enhanced data acquisition, sophisticated data logging, and complete display of multiple sensors / scales can be initiated and managed with the MSI-9850.

Compact industrial packaging and flexible mounting allows the MSI-9850 to easily integrate with your existing equipment and provide outstanding performance in the most demanding applications. See also specification sheets for MSI-9000, MSI-9020, MSI-9750A, MSI-3750CS and MSI Crane Scales (MSI-6260CS, MSI-9300, MSI-9300HT and MSI-9260) for complete capabilities and networked wireless solutions.

### Specifications

#### Housing

Rugged milled aluminum, O-ring gasketed, NEMA 4, IP65 with standard antenna; NEMA 6, IP67 with optional long range antenna

#### Weight

2.8kg (5.0lb)

#### Temperature

Operating / Storage (Internal AC/DC Power):  
-20°C to +70°C (-4°F to 158°F)  
Operating / Storage (DC Power):  
-20°C to +85°C (-4°F to 185°F)

#### Approvals (pending)

NTEP, OIML, CE, Factory Mutual

#### Power Input

Internal AC/DC Power Supply: 85-265 VAC, 47-440Hz/130-300 VDC. Includes a separate, independent 7-25 VDC power input and remote switches (requires optional power/switch interface cable)

#### Radio Link

Frequency Hopping Spread Spectrum @ 2.4 GHz providing 64 networks of scales and peripheral devices. Functions in the ISM band, license free. 10mW (low power), 63mW (medium power) or 250mW (high power) average output

#### Radio Link Effective Range

Typically 150m (500ft) indoors, 300m (1000ft) outdoors with standard antennas. The MSI-9850 operating range increases if Long Range Antennas are applied

#### Antenna

1/2 wave standard antenna

#### RFI/EMI Shielding

Exceeds NIST HB44 and CE Standards

#### Keypad

33 keys – 12 key alphanumeric, 4 cursor keys, 7 control keys and 10 user programmable keys. Password protected lock features

#### Weight Display

- 6 digit, 30mm (1.2in) high numeric weight LED's
- 4 alphanumeric 13mm (0.5in) high data LED's
- 6 LED function select annunciators
- 10 backlit LED annunciators
- Low battery LED indicator
- Automatic brightness control

#### Information Display

- 36mm (1.4in) x 67mm (2.6in) backlit LCD; capable of 8 lines, 21 characters each
- Backlight selectable On, Off or Automatic

#### Connectors

RS-232: Turck compatible pico connector, 2m (6.5ft) adapter cable to IBM compatible DE-9 connector included

### Standard Features

#### Scale / Channel Monitoring

Monitors all scale channels, easy 1 button network and/or channel changes. Supports multiple display of CellScale Channels (up to 8 simultaneously)

#### Calibration

Remotely calibrates CellScale systems

#### Real Time Clock

Supports date/time stamping in U.S.A. and European formats

#### Data Logging

Captures weighment data automatically or manually

#### Bar Code Scanner Interface

Permits bar code scanners to connect directly to the MSI-9850

#### Inter-Network Radio Messaging

Receives and transmits RF messages to any virtual Comm Port (MSI-9020 CellModem) or directly to the master CellScale Comm Port 1

#### Data I/O

- 2 Comm Ports, baud rates 300 to 230.4K
- Comm Port 1 is RS-232, RS-422, RS-485 selectable
- Comm Port 2 is dedicated RS-232

#### Totalizing, Statistics and Product ID's

Stored in the CellScale, displayed on the MSI-9850 (Function Key or Automatic). Each ID code retains full statistics on totaled weighments. Up to 32 alphanumeric product ID's can be accessed and programmed

#### Set Point Outputs

4 relay driver outputs for 5V - 24V external relays (5V provided by the MSI-9850)

#### Internal Audible Alarm

### Push-button Functions

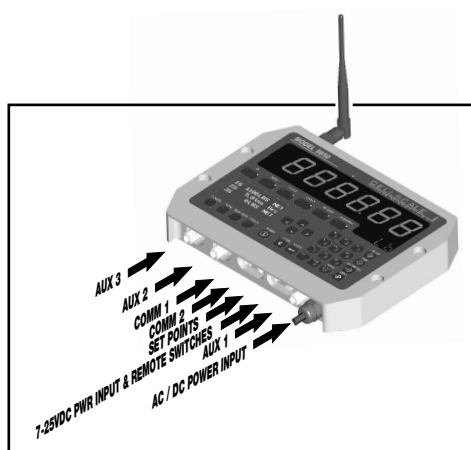
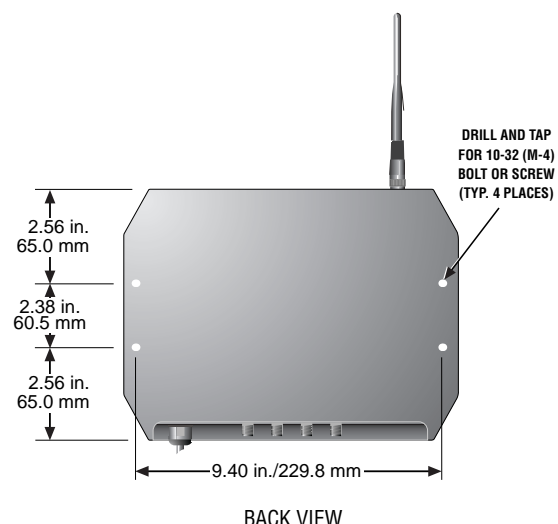
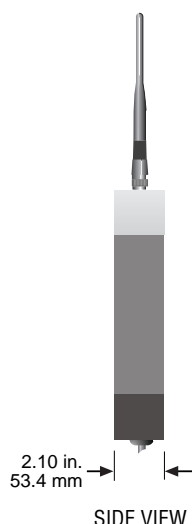
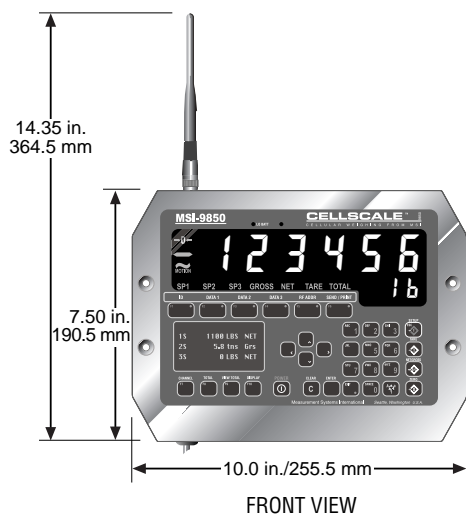
#### Fixed keys:

- Power:** On/Off
- Zero:** Zeros weight on scale
- Net/Gross:** Switches display between Net and Gross weights
- Tare:** Tares applied load and displays the weight in Net mode
- Alpha:** Upper and lower case alpha character entry
- Enter:** Store parameters, enter menus, selects highlighted item, permits editing or selection of alternate functions
- Setup/Escape:** Setup functions or return to previous menus
- Clear:** Clears last entry
- Exit:** Exits menu mode
- 0-9:** with Alpha characters

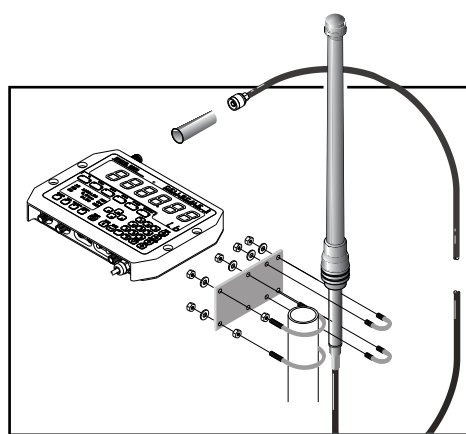
Function Keys: 10 function keys are settable to any of the following functions:

- Data String Entry:** Permits bar code or keypad entry of assignable data strings (up to four)
- Total:** Totalizes weighments
- Clear Last Total:** Removes last totaled weighment

## MSI-9850 Specifications and Dimensions



INPUT / OUTPUT CABLE ATTACH



OMNI-DIRECTIONAL LONG RANGE ANTENNA OPTION

**Show:** Next channel, last channel, next address, last address, next product ID, last product ID, totals, grand totals (Sum) or statistics

**Date and Time:** Displays current date and time.

**Enter/Edit:** Product ID print strings 1 and 2

**Send/Edit Print Strings:** Sends/edits print strings to selectable targets

**Change Units:** Changes units of measure

**Set Points:** Controls and programs CellScale Set Points – 32 Set points with messaging capability

**Peak Hold:** Turns peak hold function “On” or “Off” – used for capturing maximum readings (for high speed capture rates, consult factory)

**Key Disabled:** Disables selected function key

**Signal Strength Test:** Tests for RF signal strength

**Display Test Characters:** Performs display test of all screens

**Data Logging:** Enables automatic or manual data logging

**Bar Code Scanner Interface:** Allows user access to bar code strings

**Inter-Network Radio Messaging:** Transmit messages to any virtual Comm Port (MSI-9020 CellModem) or directly to the master CellScale Comm Port 1

### Options and Accessories

#### RF Remote Control

Features On/Off, Zero, Tare, Net/Gross, Total, View Sum and programmable function keys

#### Non Isolated DC/DC Input Power

7-25 VDC power input

#### Power/Switch Interface Cable

4m (13ft) for the 7-25 VDC source, 2 remote switches, and remote LED output leads

**Isolated DC/DC Input Power**  
9-36 VDC or 18-72 VDC (specify)

#### Long Range Antennas

- Omni-directional antenna with 9dbi gain, up to 500m (1640ft) range typical. Includes 3m (10ft) coaxial cable
- Directional Yagi antenna with 15dbi gain, up to 6km (10 mile) range typical

#### Bar Code Scanner

Several options available (consult factory regarding requirements)

#### Universal Mounting Bracket

#### External Set Point Relay Output Cable

#### External Audible Alarm

Eliminates flat panel mounting

#### Control Kit

Provides a remote I/O relay board (uses standard industrial I/O modules) for interfacing to set points, I/O modules not included

*“We weigh quality first”*

### Measurement Systems International

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Specifications subject to change without notice.

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