

MSI3650/3750

Digital Weighing

Solutions

INDUSTRIAL WEIGHT INDICATORS



MSI Electronic Weight Indicators are your solution to product weight management and application flexibility.

MSI Indicators

MSI indicators make your weighing applications more efficient by turning any electronic load cell into a flexible information system. Although they are capable of performing advanced functions to facilitate any weighing, fill or quality control application, the indicators are operated with only a few buttons — they prove that sophisticated tools can be simple to use. In fact, the user determines the indicators' sophistication level by utilizing certain features and locking out others. Simple operation, combined with superior communication, function, readability and construction, makes the MSI-3650 and MSI-3750 indicators ideal for an unlimited number of applications.

Versatile Network Communication

With integrated input/output ports, MSI indicators can form the center of networks that link load cells, computers, printers and scoreboards. RS-232 and RS-485 I/Os allow bidirectional information exchange. Network flexibility provides additional system possibilities. For example, the indicators interface with computers so you will be able to control indicator settings from a remote computer keyboard. Output is also versatile. Information downloaded to external devices can be fully formatted and allows you to insert the time, date, weight or any other data you specify directly into a print string. You can even print automatically on demand, on a

weight change, by reaching a setpoint, by computer control, at time intervals or on total. The indicators drive up to eight 350 ohm load cells or 16-2,000 ohm load cells. Multiple units can be daisy chained on the same RS-485 cable.

Full Functions to Improve any Application

MSI indicators offer a full set of functions which can be applied to any weighing application that utilizes an electronic load cell. The complete set of functions not only makes jobs more efficient, it makes more jobs possible. In their most basic mode the indicators operate as a simple scale readout, but the settings and functions can be tailored to meet virtually any complex weighing, fill or quality control application. Single pushbutton keys initiate most scale functions. Whether you are weighing with a lift truck, dynamometer, hopper, bench or floor scale, here are some of the tools you can work with:

TOTALIZING: Count and sum a series of weights (auto or manual), and view the running total at any time by pressing a keypad pushbutton.

TARE: Select either automatic or manual tare entry.

STATISTICS (optional): Set up the indicator to act as a sophisticated quality assurance tool that calculates maximum, minimum, average, standard deviation and coefficient of variance statistics for a series of weight readings. The statistics package serves up to 240 ID codes independently or as a group to calculate a grand total and grand average.

SETPOINTS: Customize parameters, including display messages, for up to eight setpoints. You can compose detailed alphanumeric messages that incorporate data such as time, date and weight. Batching is easy because the setpoints ensure accurate timing, while your messages indicate the quantity and name of the next ingredient. Or you can define a series of weight ranges (grading zones) and display the appro-



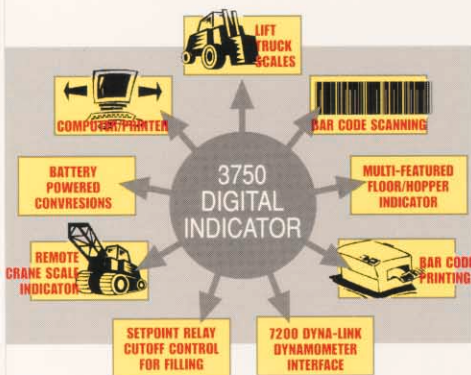
▲ A lift truck is just one of hundreds of applications for MSI digital weight indicators. They can improve any electronic load cell application.

propriate range of the current load (useful in checkweighing applications). A latching feature can lock a triggered message if a setpoint is reached (so overloads will not go unnoticed). Optional relays are available that allow setpoints to trigger devices like sirens, warning lights or process relays.

ID CODES: Utilize ID codes that independently store a tare value, a total value, total weighments counter, display mode and two 20-character print strings. You can name the codes with labels for instant identification (3750 allows identification codes to be activated by name). The labels can be used to represent anything you choose: products, employees, customers, etc. Expanded memory (optional) allows 120 or 240 ID codes, but 12 come standard.

BAR GRAPH: Use the 21-segment bar graph to graphically display load weight percentages for process control appli-

Battery replacement is accomplished in minutes with minimal effort and no tools. ▼





▲ Shown is the MSI-3650 indicator with a bar code printer. This typical setup will increase your productivity and save your operation time and money.

cations. User-defined minimum and maximum weight values help to customize the function. With MSI lift truck scales, the bar graph can also indicate out-of-level weighing conditions.

PEAK HOLD: Capture peak weight readings.

BATTERY CONSERVATION: Customize three backlight options and eight automatic power down modes to optimize readability and extend battery life.

LOCK: Prevent access to saved setups and/or undesired alteration of settings by locking them. The MSI-3650 features three locking-mode options, while the MSI-3750 allows settings to be locked individually. You can also lock the indicators into simple-operations mode.

Informative Display

It doesn't matter how many functions your indicator can perform unless it conveys the information clearly. That's why MSI indicators offer large LCD alphanumeric digits and annunciators that are visible in all lighting conditions. A fiber optic LED backlight (selectable low, medium or high) can be used in extremely low ambient light, but it requires more power. So you can choose to keep it off, keep it on or allow an integrated photocell to activate it automatically when light gets low. The display also features annunciators for motion detection, center of zero, low battery warning, operating mode and units. And a unique 21-segment bar graph shows load weight percentages. The display attributes, coupled with an optional mounting bracket that swivels 180°, make MSI indicators easy to read in any light and from any angle.

Guaranteed Durability

MSI indicators are designed for years of reliable use. MSI conducted extensive temperature, humidity, shock/vibration and water resistant integrity tests on the indicators to ensure durability in abusive environments. They operate in temperatures from -20°C to 60°C (-4°F to 140°F), and meet NEMA 4 specifications. Upkeep is minimal with fully digital calibration and optional battery power that enables continuous operation up to 100 hours (with a single 350 ohm load cell) or 350 hours (with a single 2,000 ohm load cell) from two "D" cell batteries. MSI maintains a worldwide factory trained service network and backs its products with a one-year warranty.

MEASUREMENT SYSTEMS INTERNATIONAL

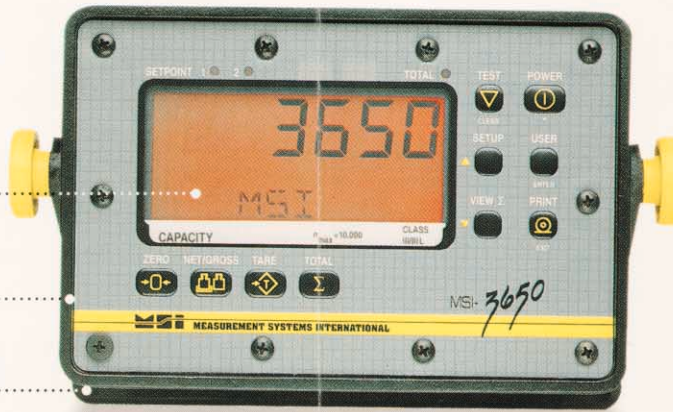
MSI-3650 DIGITAL WEIGHT INDICATORS

The MSI-3650 offers a variety of easily programmable settings to meet particular needs for setup and operation. The programmable USER key can serve a variety of useful functions, like units switching and peak hold, which makes an additional function available with a single pushbutton. The MSI-3650 is capable of utilizing most of the options available to MSI indicators. See the specifications listing for exceptions.

Solid polycarbonate front panel is sealed to meet NEMA IV applications.

Rugged aluminum alloy housing.

Heavy duty, adjustable mounting bracket.



MEASUREMENT SYSTEMS INTERNATIONAL

MSI-3750 DIGITAL WEIGHT INDICATORS

The standard MSI-3750 model offers all the standard features of the MSI-3650, then incorporates several advancements: the front panel offers alphanumeric key entry and five programmable pushbutton function keys; additional tare set options; a latching feature can lock a triggered message if a setpoint is reached (so overloads will not go unnoticed); a dual load cell option; expanded locking functions; and the ability to activate saved identification codes by name.

Large, easy-to-read liquid crystal display.

Sunlight visible LED indicators.

Selectable backlighting to balance visibility and battery conservation.

Alphanumeric display with useful annunciators.

Mechanical switches for reliability and tactile feel.

Interchangeable labels to match selected and/or personalized function keys.

Optional sealed battery compartment (not visible).

