

BALANCES

COUNTING SCALES

BENCH SCALES

CHECKWEIGHERS

CONVEYOR SCALES

FLOOR SCALES

FORKLIFT TRUCK SCALES

TRUCK SCALES

RAILROAD SCALES

INDICATORS

SOFTWARE

JUNCTION BOXES

SIGNAL PROCESSORS

MONORAIL SCALES

PRINTERS

REMOTE DISPLAYS

# Avery Weigh-Tronix Indicators



Measure. Control. Communicate.

**E1310**

Advanced  
programmable weight indicator  
and process controller

# Avery Weigh-Tronix



If increasing the role of automation in your process is essential to improving your productivity, you are probably already exploring smarter machines and faster, more versatile networks. The task of maintaining effective weight data management and process control is a mission ideally suited to the E1310 Programmable Indicator/Controller.

The E1310 has all the bases covered from one application to another – one communication environment to the next. It possesses the power, flexibility and speed to implement the most advanced thinking in weight measurement, process control and effective communication. **Measure, control, communicate.**

## Weight display and process control with unprecedented network connectivity

When we say the E1310 speaks your language, we are talking about two critically important capabilities:

- First, the ability to mesh perfectly with your industry-specific standards and operational requirements.
- Second, the ability to choose from many network configurations and protocols to send and receive data.

It is not an overstatement to say the E1310 will meet and exceed the requirements of any application. It was specifically designed to provide a no compromise, tailored solution.

At its simplest, the E1310 is an exceptional weight indicator that is compatible with most standard and custom-configured weighing platforms: bench and floor scales – truck, track, conveyor and monorail scales – scales for batching, counting and checkweighing. The signal conversion rate and internal resolution of the E1310 ensures fast, precise, repeatable measurements for both static and in-motion weighing. Accuracy is further assured with Harmonizer™ digital filtering. Harmonizer is a programmable damper that can automatically detect and cancel out specific types of interference caused by mixing operations, vibration or machine “noise.”

The E1310's standard memory provides storage space for custom start-up and shutdown sequences, tare values, multiple recipes for batching applications, print formats and data logging.

Four standard bidirectional serial ports provide connectivity to many serial devices, including printers, bar code scanners, label printers and remote displays. In addition, ModBus ASCII is also available.

Stored data may be directly printed from the indicator, downloaded and reformatted by a host PC or accessed via an intranet or internet connection.

### Networking

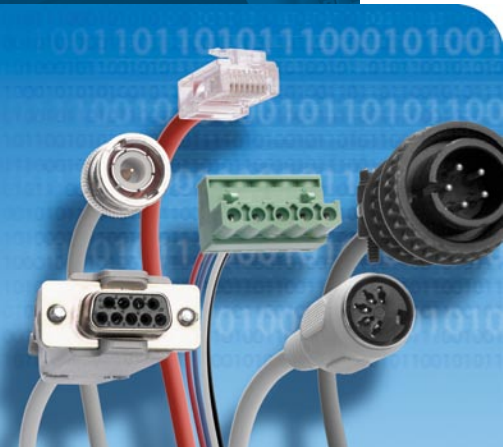
Communication networks are the central nervous system of modern manufacturing and processing facilities. The E1310 Indicator/Controller exemplifies the broad-based connectivity that has become a focal point of Avery Weigh-Tronix's new product R&D. In a fully integrated environment, the E1310 allows password-protected configuration and control of weight-based systems from any computer, on-site or around the world. Additionally, it can employ multiple information systems for maximum flexibility. Capabilities include monitoring and data acquisition via a web browser (HTTP), operational updates and error reporting via e-mail (SMTP), and pure, unaltered data transmission via FTP. The E1310 also allows AS/400, LAN or WAN access.

**Avery Weigh-Tronix**

*The E1310 assures compatibility and a reliable bridge between old and new network technologies.*

### Fieldbus Interfaces

- DeviceNet™
- ProfiBus®
- ControlNet™
- InterBus
- Remote I/O (Blue Hose)
- LonWorks®
- ModBus Plus
- ModBus ASCII (via RS232)
  
- Ethernet 10/100 (multiple layers of Ethernet communications)





## True multi-tasking

With upgrade options, the E1310 can simultaneously monitor up to eight independent scales or directly control many automated weight-based processes. Each system can be configured with its own measurement criteria, programmed routines, control devices, sensors and peripherals.

## Application specific displays

What information do you need? How do you want that information presented? The E1310 can display virtually any combination of weight data, text and graphics. The actual number of possible display configurations is well over four million. This extraordinary flexibility means you are no longer constrained by someone else's idea of what is important. You decide what is of value.

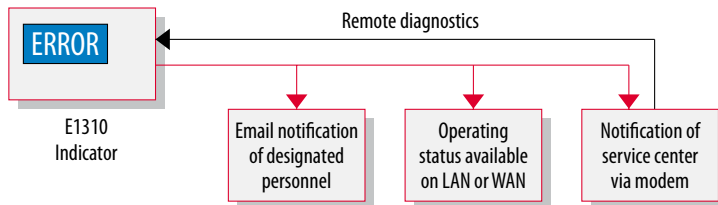
Consider just a few of the options and it becomes clear how the E1310 can save you money, provide a clearer picture of operations and reduce read errors.

- Add a horizontal bar graph to dynamically show over or under readings in checkweighing operations.
- Use vertical bar graphs to quickly show the amount of ingredients in a series of storage tanks or to show relative weights in an additive process.
- Incorporate pie graphs or a needle/sweep tachometer style gauge to easily track rapid fill operations or monitor the addition of micro-ingredients.

## Diagnostics

The E1310 monitors all connected scales, sensors and control devices, as well as its own internal systems. Faults or errors initiate "Operational Warnings" that are clearly spelled out on the indicator display. If the indicator is connected to a fieldbus, details of the problem can be viewed at any access point along the network. E-mail messages can also be sent directly to designated personnel both on and off-site. Error reporting and programmed response are system specific. This means that problems occurring within one system will not interrupt the operation of other scales or processes controlled by the E1310.

In addition to notifying your internal personnel, the E1310 can automatically report scale or indicator error conditions to your Avery Weigh-Tronix service center via an optional modem connection. The indicator maintains downloadable system logs containing a detailed record of overloads, underloads and traffic counts.



The E1310 even helps ensure greater accuracy. If the actual weight of a package or multi-ingredient mixture does not match the prescribed weight, the E1310 can compare the amount of deviation to piece or ingredient weights stored in memory to pinpoint the missing element.

No other indicator, to date, has gone farther to make full automation of weight-based systems a practical reality.

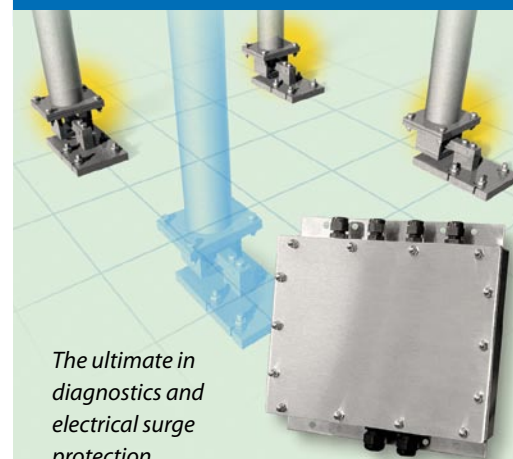


## Legal-for-trade weight display

Custom configured for your application

Create virtually any combination of text and graphics.

## SensorComm™ Digital Junction Boxes



The ultimate in diagnostics and electrical surge protection

### "Ghost" mode

Enables continued use of scales even with one or more inoperative weight sensor(s)





## “Building” an E1310 to your specifications

Avery Weigh-Tronix distributors are the starting point. Your local distributor is a full-service resource with the experience and training to translate your needs into a custom-tailored program. Units of measurement, terminology, operational annunciators, range of capacities, resolution, “watch dog” monitoring, input/output options and control functions – every aspect of the E1310’s performance can be molded around your application.

Password protected changes to program parameters, softkey options and other basic settings are easily made with the alphanumeric keypad or optional keyboard.

### Standard configuration

In addition to the features listed at right, the base E1310 Indicator/Controller includes Harmonizer™ digital filtering, battery backed time/date and 128K memory.

Input/Output:

- 4 Comm ports
- 4 Set point I/O ports
- 1 Analog scale input
- 1 PS/2 keyboard port

### Upgrades

The E1310 is easily expanded to meet the most demanding requirements of any installation.

Options include:

- Fieldbus network and control interfaces
- Additional memory up to 8 MB
- Up to 7 additional scale inputs, 8 analog outputs and up to 16 pulse counter inputs
- Internal modem
- PC (AT) style keyboard
- SensorComm™ for advanced loadcell diagnostics and lightning surge protection
- Traxle™ total truck and axle weighing system

### Display

Custom-configured dot graphic display with bright white on blue characters provides excellent readability under all lighting conditions.

Operational annunciators highlight important functions

### Operational keys

Alphanumeric keypad for data entry

Dedicated keys for frequently used functions such as zero, tare, print and units

### Programmable softkeys

One-button activation of application-specific routines, ie. start-up/shutdown procedures and batch recipes

### Measurement capabilities

Displayed resolution of up to 1 part in 10,000,000

User-defined capacity range and units of measurement, including four programmable custom units

### Rugged construction

Stainless steel enclosure is designed for long service life in extreme conditions: corrosive environments, hard-use industrial applications and frequent washdown.

*(See E1310 Technical Specification for complete specifications and available options)*

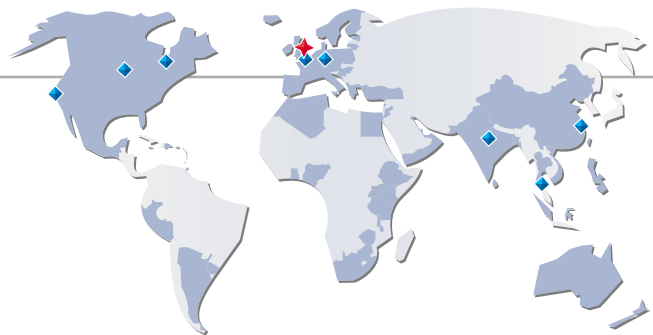
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Please call us or visit [www.averyweigh-tronix.com](http://www.averyweigh-tronix.com)  
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