

Models HI 1756-WS HI 1756-2WS

Weigh Scale Module

Applications

PROCESS WEIGHING

- *Batching/Blending*
- *Filling/Dispensing*
- *Level-by-Weight*
- *Check Weighing*



HI 1756-WS
Single Scale

HI 1756-2WS
Dual Scale

Features

WAVERSAVER®

- *Ignores vibration on and around scales*

C2® Electronic Calibration

- *Electronic calibration without test weights*



INTEGRATED TECHNICIAN®

- *Weighing system monitoring and troubleshooting*

THE BUTTON

- *One step calibration with C2 load cells*

Hardy's HI 1756-WS is available as a single slot, single or dual scale, weigh scale module that mounts in an Allen-Bradley® ControlLogix® Chassis. It reads weight and diagnostic data from strain gauge load sensors or load cells and communicates this data over the I/O chassis Backplane to the ControlLogix Processor. The HI 1756-WS module reduces installation cost and increases speed since no external stand-alone scale instrument with a wired communications link to the PLC is needed.

The HI 1756-WS conditions and digitizes the weight signal fifty times per second with over one million counts of resolution over a differential signal range of 0 to 15mV. It then transmits the selectable Gross, Net and/or Rate-of-Change data to the processor. This high resolution allows the module to tolerate large dead loads and over sizing of the load sensors while retaining a high level of usable resolution. The module supplies 5 volts of DC excitation to drive up to four 350 ohm load sensors or load cells associated with a single (-WS), or eight load cells associated with a dual (-2WS) scale. It will support additional load cells with an external power supply.

The HI 1756-WS supports the use of the producer/consumer technology in the ControlLogix system to transmit data. This type of communications is an intelligent data exchange in the system where the module produces data without having to be polled.

FEATURES

Two or three bi-color LEDs on the module's front panel report functional characteristics. Being a true ControlLogix module the HI 1756-WS supports removal and insertion under power.

C2® ELECTRONIC CALIBRATION

C2 enables electronic calibration of the weigh system without test weights. This saves system start-up costs and aggravation. Of course, even if C2 certified load sensors are not used, the system can still be calibrated the slow, traditional way using certified test weights.

WAVERSAVER®

WAVERSAVER eliminates the effects of unwanted plant vibration on or around the scale by permitting the weigh module to "see" through the unwanted vibration signals - as low as 0.25Hz - while yielding a stable actual reading.

INTEGRATED TECHNICIAN®

INTEGRATED TECHNICIAN, used in conjunction with an IT Junction Box, provides built-in system diagnostics that enable you to troubleshoot and diagnose your weighing system. You can read individual load sensor voltages and weights, make comparisons, and isolate individual system components for quick and easy troubleshooting.

THE BUTTON®

With one push of a button the weigh scale module automatically calibrates the C2 certified weighing system, making it ready for use. This saves system start-up time costs and aggravations.

COMPONENTS TO COMPLETE YOUR HARDY SYSTEM

Hardy Bench Scales, Floor Scales and Load Points

Hardy carries a wide variety of strain gauge load points and scale bases to accommodate your application requirements.



ADVANTAGE Series Load Point with C2 Calibration

ANY-WEIGH Scales

Hardy C2 Certified Cable

This 8-conductor cable is designed for optimizing weight and load sensor characteristic signals from the junction box to the instrument.

Hardy Junction Box (HI 215IT Series) with INTEGRATED TECHNICIAN

This NEMA 4 rated waterproof enclosure sums from one to four load sensor signals. Its unique design allows for easy electronic isolation and troubleshooting of the weighing system.



HARDY
PROCESS SOLUTIONS
Measurement • Automation • Productivity

SPECIFICATIONS

Power

- Provided from the backplane of the rack: +5Vdc, +24Vdc

Backplane Current

- < 1 Amp @ 5Vdc 5W
- < 0.0125 Amp 0.3 @ 24Vdc with 4 350 ohm L.C.

Inputs

- Signal: -0.3mV through +15.3 mVdc
- Sense: +5Vdc
- C2® Electronic Calibration

Outputs

- Excitation 5Vdc to 8.75Vdc

Common Mode Rejection

- 100dB at or below 60 Hz (minimum)

Resolution

- Internal, 1:8,388,608

Conversion Rate

- 50 updates per second

Vibration Frequency Rejection

- 0.25 Hz and above in 5 selectable steps
- WAVERSAVER®

Weight

- 1.1 lb (0.5 kg)

Environmental Conditions

- Operating Temperature: 0 to 60°C (32 to 140°F)
- Storage Temperature: -40 to 85°C (-40 to 185°F)

Relative Humidity

- 5 to 95% (non-condensing)

Weighing Modes

- Net, Gross, Rate-of-Change

Calibration

- Electronic (C2)
- Traditional (test weights)

Averages

- 1-255 user selectable in single increments

Indicators

- "OK" Module Status, tri-color LED
- "Scale 1" Functional Data, tri-color LED
- "Scale 2" Functional Data, tri-color LED

Approvals

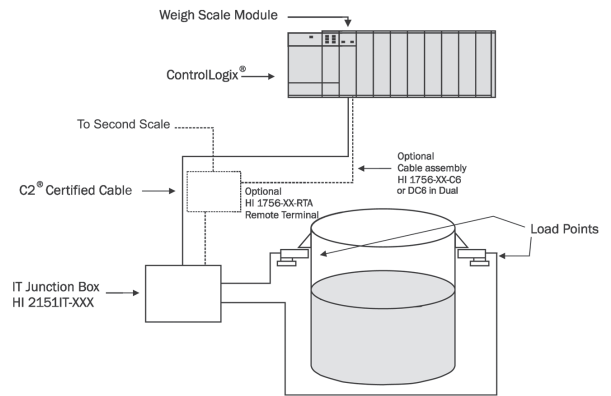
- UL, CUL, CE

Warranty

- Two-year warranty against defects in workmanship

All specifications subject to change without notice. Please contact the Hardy factory or visit our website for the latest specifications.

TYPICAL CONFIGURATION



OPTIONS

Remote Termination Assembly (-RTA)

The weigh scale module optional Remote Termination Assembly provides connection points between the cable assembly to the module and individual wires from the junction box, or load sensors, of up to two scales. The RTA is designed for standard DIN mounting rails or standoffs. With an HI 1756-RTA configuration, the weigh scale modules can be replaced without disturbing the wiring.

Cable (-C6 -DC6)

Hardy provides an optional 6-foot (1.8m) cable assembly from the weigh scale module to the remote termination assembly for both single and dual configuration.

Options Ordering

Options can be ordered at the same time the module is ordered by adding the dash designators to the end of the module number.

For example:

HI 1756-WS-RTA-C6	Single weigh scale module with remote termination assembly and cable
HI 1756-2WS-RTA-DC6	Dual weigh scale module with remote termination assembly and cable
HI 1756-WS	Single weigh scale module alone
HI 1756-2WS	Dual weigh scale module alone
HI 1756-XX-RTA	Remote termination panel alone; supports two single-scale and one dual-scale module
HI 1756-XX-C6	Single-scale 6-foot (1.8m) cable from RTA to a single module
HI 1756-XX-DC6	Dual-scale 6-foot (1.8m) cable from RTA to 2 single modules or one dual module

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ISO 9001:2008
CERTIFIED
Since 1993

To learn more about the HI 1756-WS / HI 1756-2WS, visit our web site for:

- full product specifications
- ordering information
- application notes
- operator's manual

www.hardysolutions.com

or call us: 800-821-5831
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