

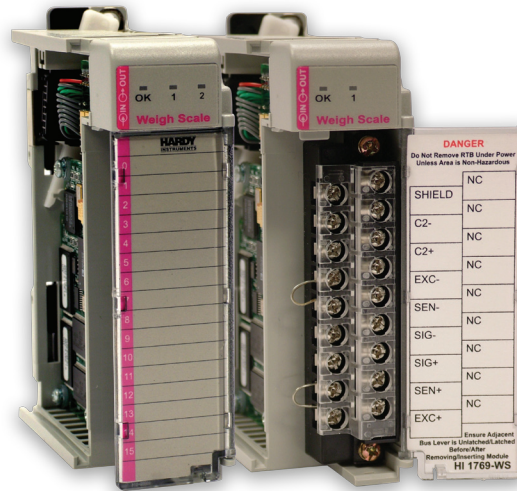
Models HI 1769-WS HI 1769-2WS

Weigh Scale Module

Applications

PROCESS WEIGHING

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



Features

Direct Backplane to the CompactLogix™ and MicroLogix™ 1500 PLC:

- *Reduce installation time and system costs with no need for external wiring*

WAVERSAVER®

- *Ignores vibration on and around scales*

C2® Electronic Calibration

- *Electronic calibration without test weights*



INTEGRATED TECHNICIAN®

- *Weighing system monitoring and troubleshooting*

Hardy's compact weigh scale module is available in single channel or dual channel models for use with the Allen-Bradley® MicroLogix™ 1500 and CompactLogix® controllers. The HI 1769-2WS and HI 1769-WS read and condition weight and diagnostic data from strain gauge load sensors or load cells and communicate this data over the I/O chassis backplane to the MicroLogix1500 or CompactLogix processor. Both modules reduce installation costs, as they do not require an external stand-alone scale instrument with a wired communications link to the PLC.

The HI 1769-WS conditions and digitizes the weight signal fifty times per second with over eight million counts of resolution over a differential signal range of 0 to 15mV. It then transmits the selectable Gross, Net, Rate-of-change and/or Diagnostics data to the processor. This high resolution enables the module to tolerate large dead loads and oversizing 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 scale (-WS), or eight load cells associated with a dual (-2WS) scale. It will support additional load cells with an external power supply.

FEATURES

Two or three bi-color LEDs on the module's front panel report functional characteristics. A clear door and removable label enable positioning of your own unique information and viewing once the door is closed.

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.

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

Backplane Current

- < 0.5 Amps @ 5Vdc

Inputs

- Signal, -0.3mV through +15.3 mV
- Sense, +5Vdc
- C2® Electronic Calibration Diagnostics data

Outputs

- Excitation 5Vdc

Common Mode Rejection

- 100dB at or below 60 Hz (minimum)

Resolution

- Internal, 1:8,388,608

Vibration Frequency Rejection

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

Weight

- 0.6 lb (0.27 kg)

Environmental Conditions

- Operating Temperature: 0 to 60°C (32 to 140°F)
- Storage Temperature: -40 to 65°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)

Conversion Rate

- 100 updates per second

Approvals

- UL/CUL, CE
- Class I, Div 2, Group A, B, C & D

Indicators

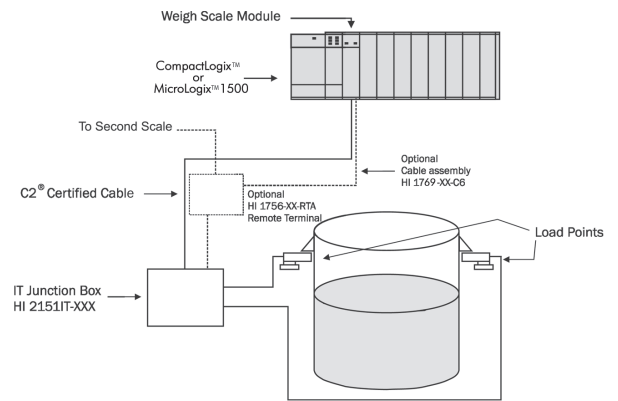
- "OK" Module Status, bi-color LED
- "Scale 1" Functional Data, bi-color LED
- "Scale 2" Functional Data, bi-color LED

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 1769-RTA configuration, the weigh scale modules can be replaced without disturbing the wiring.

• Cable (-C6 -DC6)

Hardy provides an optional 6-foot 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 1769-WS	Single weigh scale module alone
HI 1769-2WS	Dual weigh scale module alone
HI 1769-XX-RTA	Remote termination panel alone; supports two single-scale and one dual-scale module
HI 1769-XX-C6	Single-scale 6-foot (1.8m) cable from RTA to a single module
HI 1769-XX-DC6	Dual-scale 6-foot (1.8m) cable from RTA to 2 single modules or one dual module
HI 1769-WS-RTA-C6	Single weigh scale module with remote termination assembly and cable
HI 1769-2WS-RTA-DC6	Dual weigh scale module with remote termination assembly and cable

To learn more about the HI 1769-WS / HI 1769-2WS, visit our web site for:

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

www.hardysolutions.com

or call us: 800-821-5831
+1-858-278-2900

Hardy Process Solutions

9440 Carroll Park Dr.
San Diego, CA 92121
tel. +1-858-278-2900
tel. 800-821-5831
fax +1-858-278-6700
www.hardysolutions.com
hardyinfo@hardysolutions.com

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