

Weigh Feeder Control Module

HI 1756-FC



AUTOMATIC WEIGHT AND RATE CALIBRATION

A five-point auto rate calibration automatically allows the module to calibrate itself to the characteristics of the feeder and the material being fed. This allows for a higher feed accuracy over a broader range of feed rates.

C2[®] ELECTRONIC CALIBRATION

C2[®] enables electronic calibration of the weigh system without test weights. This saves you 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[®] ignores vibration and mechanical noise in feeders and the plant environment 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.

ADDITIONAL FEATURES

Two bi-color LEDs on the front panel of the module report functional characteristics. Being a true ControlLogix[®] module, the HI 1756-FC supports removal and insertion under power.

Process Weighing Applications

- Gravimetric Feeding
- Continuous and Batch Rate Control

Features and Advantages

- **Direct backplane to the ControlLogix[®] PLC:** Reduce installation time and system costs with no need for external wiring
- **Automatic Closed Loop Control:** Continuously adjusts feeder to deliver desired feed rate
- **True Five-Point Automatic Rate Calibration:** Produces high feed accuracy for a wide range of feed rates
- **Automatic Refill:** Starts and stops refilling without interrupting the feeding of material

Used in new applications, or to retrofit volumetric feeders or replace outdated controllers in gravimetric systems, the single-scale HI 1756-FC weigh feeder control module mounts directly into your Allen-Bradley ControlLogix[®] chassis. By using the PLC rack I/O, it can control many feeding devices, such as auger, vibratory and belt-based feeders, as well as your proprietary designs.

WORRY-FREE OPERATION

The HI 1756-FC feeder control module will watch your process and notify you of problems. Prompts on your system's HMI display and PLC alarm relay outputs occur with tolerance errors and other failures. By entering specific control parameters, you decide at which levels to alarm or shut down the application.

MULTIPLE FEEDER CONTROL

The HI 1756-FC is a powerful building block when it comes to multiple feeder systems. It can be a slave to other process inputs through the ControlLogix processor.

COMPONENTS TO COMPLETE YOUR HARDY INSTRUMENTS SYSTEM

• Hardy Platform Scales and Load Points



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

• Hardy C2® Certified Cable

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

• Hardy Junction Box (HI 215IT with INTEGRATED TECHNICIAN®)

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



• Technical Support/Services

Hardy Instruments offers free phone support, a rapid repair program, product training, as well as local field service. Hardy WebTech, our online knowledgebase, provides answers to many technical questions 24/7/365. Visit the Hardy website for more details at www.hardyinstruments.com.

HARDY INSTRUMENTS

SPECIFICATIONS

- **Power**
Provided from the backplane of the rack
+5Vdc
+24Vdc
- **Backplane Current**
< 1 Amp @ 5Vdc 5W
< 0.0125 Amp 0.3W @ 24Vdc with four 350 ohm L.C.
- **Totalizer**
Keeps track of the amount of ingredient dispensed
- **Time Units**
Seconds, minutes and hours
- **Units of Measure**
lb, oz, ton, kg, g, mt
- **Mode**
Batch, continuous
- **Inputs**
Signal: -2.5mV thru +17.5mVdc
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
- **Averages**
1-255 user selectable in single increments
- **WAVERSAVER®**
0.25 Hz and above in 5 selectable steps, and OFF
- **I/O Chassis Location**
Any single I/O chassis slot
- **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)
- **Calibration Techniques**
Electronic (C2®)
Traditional (test weights)
- **Automatic Rate Calibration**
Five-point
- **Weight**
1.1 lb (0.5kg)
- **Indicators**
"OK", Module Status, LED
"Scale 1", Functional Data, LED
- **Certifications**
CE (pending)

All specifications subject to change without notice.
Visit www.hardyinstruments.com for up-to-date specs.

MODEL OPTIONS

HI 1756-FC: Single-scale weigh feeder control module alone

HI 1756-FC-RTA-C6: Single-scale weigh feeder control module with remote termination assembly and cable

HI 1756-XX-RTA: remote termination panel alone

HI 1756-XX-C6: single scale 6-foot (1.8m) cable alone

To learn more about Hardy's
HI 1756-FC module, visit
www.hardyinst.com/1756-FC

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CERTIFIED

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