

# Model HI 4060 Loss-in-Weight Rate Controller



## Applications PROCESS WEIGHING

- Gravimetric Feeding
- Continuous and Batch Rate Control
- Master/Slave



**Technology Partner**  
 A ROCKWELL AUTOMATION PARTNER

## Features

### THE HARDY PROCESS TOOLBOX

The Hardy Process Toolbox is a set of productivity tools that support process weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in process weighing applications.



PROCESS TOOLBOX  
**C2 eCAL IT**

#### - C2<sup>®</sup> and eCAL<sup>™</sup> Electronic Calibration

Electronic calibration without test weights



#### - WAVERSAVER<sup>®</sup> Ignores vibration on and around scales

#### - INTEGRATED TECHNICIAN<sup>®</sup>

Weighing system monitoring and troubleshooting



## Advantages

- **Automatic Closed Loop Control**  
 Continuously adjusts feeder to deliver desired feed rate
- **Graphics Display Mode**  
 Graphs actual feed rate vs. setpoint or operation percentage output
- **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Used in new applications, or to retrofit volumetric feeders or replace outdated controllers in gravimetric systems, Hardy's HI 4060 loss-in-weight rate controller controls many feeding devices, such as auger, vibratory and belt-based feeders, as well as your proprietary designs.

### MULTIPLE FEEDER CONTROL

The HI 4060 is a powerful building block when it comes to multiple feeder systems. It can act as a master to multiple controllers or as a slave to other HI 4060's, HI 4050's or other process inputs. Let multiple DIN-rail HI 4060's be controlled from a common host computer or programmable controller.

### AUTOMATIC WEIGHT AND RATE CALIBRATION

A five-point auto rate calibration automatically allows the HI 4060 to calibrate itself to the feed characteristics of the feeder and the material being fed. This allows for a higher feed accuracy over a broader range of feed rates.

### MULTIPLE CONFIGURATION STORAGE

The HI 4060 lets you store set-up and calibrations in hundreds of dedicated, on-board memory locations, for easy and fast configuration retrieval and change. Configurations are also automatically stored in the Secure Digital Memory Module (SMM-SD) card, letting you easily transfer data from one instrument to another, or view that data on your PC.

### EASE OF SET-UP

You can quickly access menus to set up process weight and rate parameters from the controller's front panel keys and LCD display. The HI 4060's

embedded web server also gives you remote access to control information and instrument parameters.

The rate controller will watch your process and notify you of problems. Display Prompts and 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. You can also assign three different security levels to each function.

### MODULARITY AND EASE OF INSTALLATION

Configure your HI 4060 rate controller to suit your specific application:

- With or without display
- DeviceNet, EtherNet/IP, Modbus TCP/IP, Profibus
- Panel, DIN-rail, remote or wall mount
- Either AC or DC power

Just drill or punch standard holes in your panel and attach the front panel keyboard display. The rate controller housing can be attached to the rear of the panel or remotely, up to 100 feet away to a DIN rail.

### CORE TECHNOLOGIES

WAVERSAVER<sup>®</sup> ignores vibration and mechanical noise in feeders and the plant environment. C2<sup>®</sup> electronic calibration enables fast, accurate, electronic calibration of your system, saving start-up costs and aggravation. Used in conjunction with an IT Junction Box, INTEGRATED TECHNICIAN<sup>®</sup> (IT) allows you to troubleshoot and diagnose your weighing system right from the instrument's front panel or a web browser. You can read individual load sensor voltages and weights, make comparisons, and isolate individual system components.

## 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 meet your application requirements.

*ADVANTAGE Series  
Load Point with  
C2 Calibration*



*Hardy HIBSX  
Bench Scales*



### Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weigh Processors

*Allen-Bradley® Compatible  
Plug-in Weigh Scale Modules*



*HI 3000 Series  
HI 4050 Controllers.  
HI 6000 Series  
& HI 6800 Series*



## SPECIFICATIONS

### Display

- 64x128 LCD display with backlight

### Averaging

- Sliding up to 250 readings in single unit increments

### Totalizer

- Keeps track of the amount of ingredient dispensed

### Standard Interfaces

- Ethernet: 10/100base T; embedded web server
- Serial RS 232: simplex to printer or to remote scoreboard

### Stable Weight Reading

- WAVERSAVER® 0.25Hz - 7.5 Hz

### Calibration Techniques

- C2® electronic calibration
- Traditional calibration with test weights

### Time Units

- Seconds, minutes and hours

### Units of Measure

- lb, oz, ton, kg, g, mt

### Mode

- Batch, continuous, manual, automatic

### Load Point Excitation

- 5VDC power drives up to eight 350-ohm load cells

### Digital Inputs

- Eight configurable, non-isolated

### Analog Input

- Allows rate setpoint to be adjusted by an external analog input
- 0-20mA, 4-20mA, 0-5VDC or 0-10VDC

### Control Output (1)

- User selectable
- 0-20mA, 4-20mA, 0-5VDC or 0-10VDC

### Analog Outputs (3)

- Transmits weight or actual rate
- 4-20mA, 0-5VDC or 0-10VDC

### Power Requirement

- AC: 110-240VAC, 47-63Hz
- DC: 24VDC
- 10 watts max

### Operating Temperature

- -10° to +40°C (14° to 104°F)

### Storage Temperature

- PM: -30° to +70°C (-22° to 158°F)
- DR: -40° to +85°C (-40° to 185°F)

### Enclosure

- Panel/remote mount
- DIN mount (blind)
- Wall mount

### Dimensions

- Front panel: 4"h x 7"w x .725"d (101.6h x 177.8w x 18.4d mm)
- Housing: 4.00"h x 5.65"w x 3.13"d (101.6h x 143.5w x 79.4d mm)
- Wall mount: 11.50"h x 8.28"w x 5.54"d (292.1h x 210.3w x 140.6d mm)

### Approvals

- CE, UL/CUL, CB Scheme, NTEP, Canada Weights & Measures

### Compliance

- RoHS3 & REACH

### Warranty

- Two-year warranty against defects in workmanship

## MODEL NUMBERS

### HI 4060

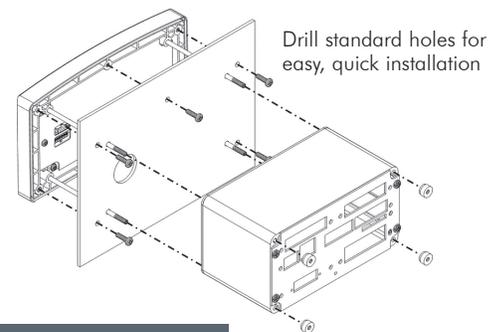
-PM	Panel or remote mount
-PMWS	Stainless steel wall mount with display
-DR	DIN rail (blind)
-DRWS	Stainless steel blind wall mount
-AC	AC power
-DC	DC power

## NETWORK OPTIONS

-DN	DeviceNet
-EIP	Ethernet/IP
-MD	Modbus TCP/IP
-PB	Profibus DP

*DeviceNet*

*EtherNet/IP*  
performance tested



**To learn more about the HI 4060 visit our web site for:**

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

**www.hardysolutions.com**

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**HARDY**  
**PROCESS SOLUTIONS**  
Measurement • Automation • Productivity

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