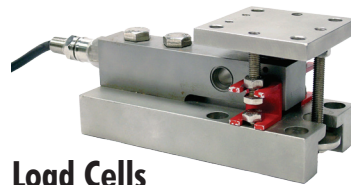


**Static & Dynamic Check Weighing**

**Applications**

**PROCESS WEIGHING**

- **Static Check Weighing**
- **Dynamic Check Weighing**



**Load Cells**



**Junction Box**

**Features**

**THE HARDY PROCESS TOOLBOX**

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



**Electronic calibration without test weights**



**Built-in Diagnostics and Troubleshooting**



**Vibration immunity**



**Easy to configure and setup with a Rockwell Automation PLC**

**Rockwell EDS-Add-On-Profile**

To learn more about the HI 4050CW visit our website:

- Full product specifications
- Ordering information
- Application notes & User's Guide
- Technical drawings

[www.hardysolutions.com](http://www.hardysolutions.com)

**Give your Check Weighing an EDGE**

**How important is using a Hardy Check Weighing system in your process?**

**We've done the math for you:**

- Your system produces 120 packs per minute with an uptime of 85% a year.
- Overfill is 2 grams per pack.
- Product cost of \$0.001 per gram.
- Overfill cost per year = \$107,222
- Reduction of just 1 gram overfill per pack = **\$53,611 savings per year.**

The high speed HI 4050CW check weighing instrument can process up to 250 weight measurements per second at high resolution (1:30:000). The 4050CW consists of a special version of the HI 4050 weight controller with built-in check weighing firmware connected to up to four analog load cells and a Hardy junction box. The HI 4050CW is perfect for building new systems for either static or dynamic check weighing or retrofitting the weight electronics of older, less reliable systems.

Hardy WEVERSAVER® and WEVERSAVER+ technology suppresses vibration and mechanical noise, dramatically reducing scale settling time and increasing the speed of stable gross and net weight readings. WEVERSAVER+ provides active filtering making weight readings fast, stable and accurate.

**OPEN PLATFORM:** A HI 4050CW system is made of Commercially Available Off the Shelf (COTS) parts that are easy to understand, maintain and troubleshoot. Connect to your plant-wide system using standard protocols such as EtherNet/IP,

Devicenet, ControlNet, Allen-Bradley® Remote I/O, Profibus-DP, Modbus TCP/IP, or Analog.

It features a lower Total Cost of Ownership because it's simple to use, calibrate, integrate, and maintain. A Rockwell EDS Add-On-Profile (EDS-AOP) makes it easy to configure with RSLogix.

**AUTOMATIC EDGE DETECTION:** Smart features of the HI 4050CW include EDGE detection, an algorithm that optimizes when weight readings are captured:

- Automatic EDGE detection starts weight processing the instant a load settles onto the scale by monitoring changes in the signal waveform from connected load point.
- Also works in conjunction with up to two additional external sensors such as photo-eyes to optimize process timing of weight readings.

**ANALOG:** Connect the HI 4050CW to up to four ADVANTAGE® load points and a Hardy IT junction box for high speed, high resolution weight readings compatible with C2 calibration.

## 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



Hardy Bench Scales

### Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Transmitters

Allen-Bradley® Compatible Plug-in Weigh Scale Modules



HI 3000 Series HI 4050 Controllers and HI 6000 Series



## SPECIFICATIONS

### Controller Resolution

- Stable processed weight 1:30:000
- Maximum Displayed Resolution: 1:999,999
- Internal Resolution 1:8,388,608

### Update Rate

- Processed weight, display, communications: 110 or 250 updates per sec.
- Unprocessed weight (A/D conversion: 4800 times per sec.)

### Weight Ranges

- Analog: Depends on load point selection

### Averaging

- Sliding up to 250 readings in single unit increments

### Standard Interfaces

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

### Stable Weight Reading

- WAVESSAVER® - user selectable .25 Hz to 7.5 Hz
- WAVESSAVER+ patent pending adaptive filtering improves by 3X the stability of static weight readings

### Calibration Techniques

- C2 weightless calibration
- Traditional 2-point calibration with test weights

### Display

- 64x128 LCD display with backlight

### Units of Measure

- Lb, lb/oz, oz, ton, kg, g, t

### Outputs:

- Four optional 5 to 24VDC (-DIO)

### Mode

- Gross, Net

### Load Point Excitation

- 5 VDC

### Digital Inputs

- Three mappable, non-isolated
- Three optional mappable, isolated (-DIO)

### 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)

### Controller Enclosure

- Panel/remote mount, DIN mount, or Stainless steel wall mount

### Controller Dimensions

- Front panel: 4" h x 7" w x .725" d (101.6h x 177.8w x 18.4d mm)
- Housing: 2.98" h x 5.65" w x 3" d (75.7h x 143.5w x 76.2d mm)
- Wall mount: 11.5" h x 8.28" w x 5.54" d (292h x 210.3w x 140.6d mm)

### Approvals

- UL/CUL, CE certification (on instrument only)
- Class 1, II, III Div 2, Groups A-G
- Class III, Div 1, Groups E-G

### Compliance

- RoHS

### Warranty

- Two-year warranty against defects in workmanship

## THE HI 4050CW

### Hardy 4050CW Controller

### Check Weighing Software



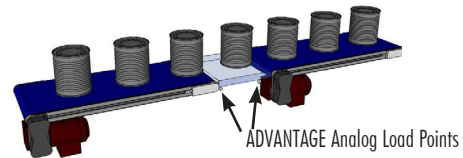
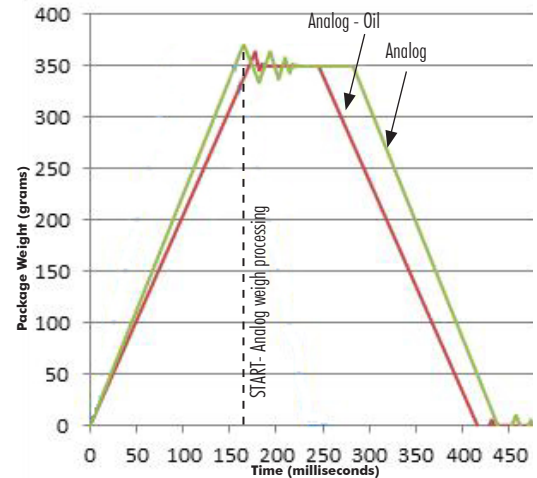
### ADVANTAGE® Analog Load Points

- Connect up to 4 load points using a Hardy IT junction box
- C2 certification & weightless calibration



### Hardy Junction Box

- Integrated Technician Diagnostics for the entire system
- C2 certification & weightless calibration



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

### Hardy Process Solutions

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hardyinfo@hardysolutions.com

**ISO 9001:2008**  
CERTIFIED  
Since 1993

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HI 4050CW  
05/16  
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