

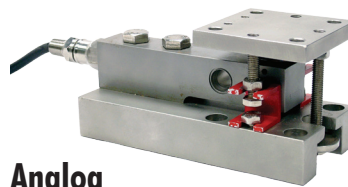
Analog and Digital Check Weighing



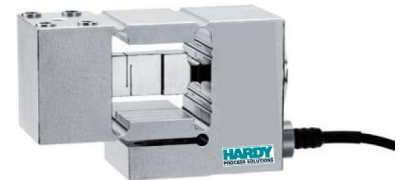
Applications

PROCESS WEIGHING

- Static Check Weighing
- Dynamic Check Weighing



Analog



Digital

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

C2® eCAL

Built-in Diagnostics and Troubleshooting

IT INTEGRATED TECHNICIAN®

Vibration immunity

WAVESAVER®

Easy to configure and setup with a Rockwell Automation PLC

Rockwell 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

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 250 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 = \$223,380
- Reduction of just 1 gram overfill per pack = **\$111,690 savings per year.**

The high speed HI 4050CW check weighing system can process up to 250 high resolution (1:30:000) weight measurements per second. The 4050CW consists of a special version of the HI 4050 weight controller connected to up to four analog load cells and a Hardy junction box or a to a high speed Digital Sensor Point (DSP) via a digital interface card. 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.

The 4050CW breaks the traditional analog strain gauge "speed barrier", without the cost of MFR (Magnetic Force Restoration or other similar high speed/resolution technologies) yet it still delivers accuracies of up to 0.01% of full sensor capacity.

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 Add-On-Profile 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.

DIGITAL CERAMIC SENSOR: The Hardy ADVANTAGE® DSP is a high speed, high resolution, shock resistant sensor designed for industrial applications requiring a fast, accurate and repeatable response to changes in weight.

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



ANY-WEIGH®
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

Performance:

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.

Accuracy

- > 0.025% F.S. of sensor*

Weight Ranges

- Analog: Depends on load point selection
- Digital 2, 5, 10, 20, 50 and 100kg

Averaging

- Sliding up to 250 readings in single unit increments

Standard Interfaces

- Ethernet: 10/100base T; embedded web server
- Serial RS 232: simplex 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 (analog load points only)
- Traditional 2-point calibration with test weights (Digital)

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

- 24VDC

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)

Enclosure

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

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)
- Certification on digital interface card pending
- Class 1, Div 2, Groups A-D

Warranty

- Two-year warranty against defects in workmanship

THE HI 4050CW

Hardy 4050CW Instrument

Check Weighing Software



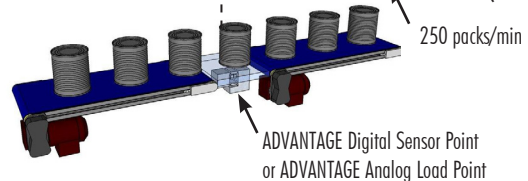
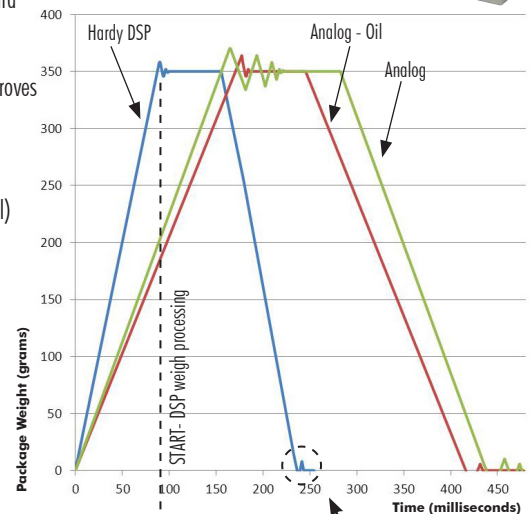
ADVANTAGE® DSP

- Ultra-stiff Ceramic Load Cell Construction
- Minimal Deflection to reach Full Scale
- Super Fast Response Time On and Off the Scale



ADVANTAGE® Analog Load Points

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



HARDY
PROCESS SOLUTIONS
Measurement • Automation • Productivity

Hardy Process Solutions

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ISO 9001:2008
CERTIFIED
Since 1993

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HI 4050CW
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