HARDY
PROCESS SOLUTIONS
Measurement ▪ Automation ▪ Productivity

Model HI 4050+
Weight Controller

Applications
PROCESS WEIGHING
- *Batching/Blending*
- *Filling/Dispensing*
- *Level-by-Weight*
- *Check Weighing*
- *Rate Monitoring*

Rockwell Automation
Encompass™ Product Partner
Global

Features

THE HARDY PROCESS TOOLBOX

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

PRODUCTIVITY
HARDY
PROCESS TOOLBOX

Electronic calibration without test weights

C2® eCAL

Weighing system monitoring, diagnostics and troubleshooting

IT INTEGRATED TECHNICIAN®

Vibration immunity from mechanical noise

WAVERSAVER®

Easy to configure and setup with a Rockwell Automation PLC

Rockwell Add-on-Profile

The HI 4050+ is a fast, high-resolution weight controller that helps to reduce your labor content, speed your production throughput, and improve the quality and safety of your end product. The HI 4050+ acts as a front end weight controller to a PLC, PC or DCS system. It also operates as a standalone weight controller or monitor.

FAST & STABLE WEIGHT READINGS
With a selectible update rate of 100 or 250 updates per second, WAVERSAVER conditioning and Hardy's new WAVERSAVER+ patent pending adaptive filtering algorithms, the HI 4050+ displays accurate, stable rate readings fast. With a processed weight resolution of 1:30,000 and an addressable resolution of 1:100,000, the HI 4050+ is precise and accurate.

HIGHLY CONFIGURABLE
Configure your HI 4050+ weight controller to suit your specific weighing application:
- With or without display
- DeviceNet, EtherNet/IP, ControlNet, Modbus TCP, Modbus RTU, Profibus, Remote I/O, or Analog interfaces
- Panel, DIN rail, remote or wall mount
- Either AC or DC power
- Weight by rate

EASY SET-UP
Use the embedded Webserver to set up instrument parameters from anywhere on the Ethernet network. Setup is quick and easy with the front panel keys and LCD display. A Rockwell Add-On-Profile (AOP) makes it easy to configure with RSLogix.

EASE OF INSTALLATION
Just drill or punch standard holes in your panel and attach the front panel keyboard display to the panel front. The weight controller housing can be attached to the rear of the panel, wall or remotely, up to 100 feet away. Or connect to a DIN rail. It can be mounted vertically, horizontally or offset to make use of available space.

SECURE MEMORY MODULE (SMM-SD)
Hardy's rear panel accessible SMM is more than just a memory card - it uses a standard Secure Digital (SD) memory card. The card allows easy expansion, the transfer of data from one instrument to another, and is readable on your PC.

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.

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 even if those components are inaccessible.

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

STOCK • MAKE • PACK • SHIP

SPECIFICATIONS

Performance

Resolution
- Legal for Trade 1:10,000
- Stable Processed Weight 1:30,000
- Maximum Displayed Resolution 1:100,000

Selectible Update Rate: 110 or 250 times per second

Averaging
- Sliding up to 250 readings in single unit increments

Display
- 64x128 LCD display with backlight

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 minimum to 7.5Hz maximum
- WAVERSAVER+ patent pending dynamic filtering improves stability of static weight readings by 3X

Calibration Techniques
- C2® electronic calibration
- Traditional calibration with test weights

Units of Measure
- Lb, lb/oz, oz, ton, kg, g, t

Outputs:
- Four optional 5 to 24VDC (DIO)

Mode
- Gross, net, available rate-of-change (ROC)

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

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
- Stainless steel wall mount

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

Compliance
- RoHS & REACH

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: 11.50"h x 8.28"w x 5.54"d (292.1h x 210.3w x 140.6d mm)

Warranty
- Two-year warranty against defects in workmanship

HI 4050+ MODEL NUMBERS

-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

-CN	ControlNet
-DN	DeviceNet
-EIP	EtherNet/IP
-RIO	Allen-Bradley Remote I/O
-4ANA/B	Four independent Analog out
-MD	Modbus TCP/IP
-PB	Profibus DP
-DIO	Digital I/O

Visit our web site for:
- **Full product specifications**
- **Ordering information**
- **Application notes**
- **Firmware and software updates**
- **User Guide**

www.hardysolutions.com
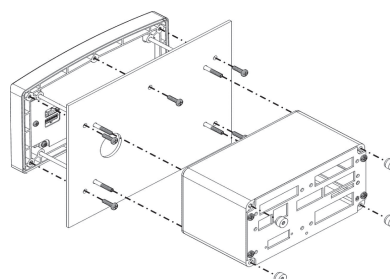**or call us: 800-821-5831**

Drill standard holes for easy, quick installation

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