HARDY
PROCESS SOLUTIONS
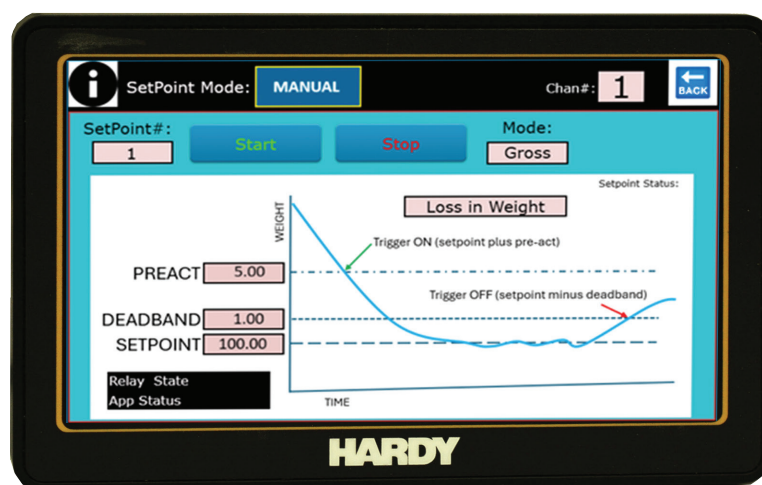### Measurement ▪ Automation ▪ Productivity

Setpoint Weight Controller

Technology Partner

A ROCKWELL AUTOMATION PARTNER

Applications
PROCESS WEIGHING

• *Setpoint Weight Control*

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

PROCESS TOOLBOX

Electronic calibration without test weights

C2 ®

Weighing system monitoring, diagnostics and troubleshooting

IT *INTEGRATED TECHNICIAN* ®

Vibration immunity from mechanical noise

WAVERSAVER ® & **WAVERSAVER+**

Easy to configure and setup with a Allen-Bradley ® **PLC**

EDS-AOP

The HI 6850-SPWC instrument is a weight controller with a built-in Setpoint Control application. The weight controller continuously measures a tank or vessel's weight. While in Loss-In-Weight mode, the setpoint controller will open relays (unlatch) when the weight reaches or falls below the setpoint threshold; while in Gain-In-Weight mode, the setpoint controller will close relays (latch) when the weight reaches or goes above the setpoint threshold. Coupled with a required 8-channel relay card, the controller can automatically control fillers, switches or valves that adjust tank or vessel levels for up to four weight channels.

HIGHLY CONFIGURABLE
Versatility is delivered thru a variety of configurations that include Digital and Analog I/O, DC relays and up to 4 channels of scale inputs per instrument. Customize controller settings suit the specifics of critical manufacturing operations. Available with an optional 7" touch-screen display that features a full-color GUI or a DIN rail mount (no display) with a webserver; the HI 6850-SPWC is ideal for any industrial weighing requirement.

EASY SET-UP
Setpoint weight control is configurable both through the optional touchscreen display panel or through a built-in webserver.
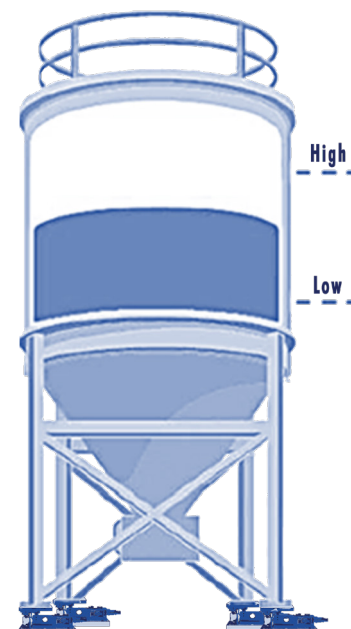
FAST & STABLE WEIGHT READINGS
Featuring Hardy's exclusive WAVERSAVER® and WAVERSAVER+, even in noisy environments with excessive amounts of mechanical vibration, the HI 6850-SPWC provides a steady 1:30:000 resolution in oz, lb, ton, g, and kg at 250 updates per second on the primary channel and 100 updates per second on secondary channels.

PREACT VALUES
The HI6850-SPWC uses a preact value to account for the difference between the setpoint and the target weight. It is used to compensate for in-flight material or delayed reaction times when filling or dispensing from a vessel. If set to zero, there is no compensation. This provides a very accurate measurement.

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 traditional way using certified test weights.

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 4000 Series
HI 6800 Controllers
and HI 6000 Series

SPECIFICATIONS

Performance

Resolution
- Stable Processed Weight 1:30,000
- 24-bit ADC: 16 Million Counts

Update Rate:
- 250 Hz main channel; 100 Hz on up to three optional weight channels
- Unprocessed weight (A/D conversion rate): up to 4,800 Hz.

Averaging
- Sliding up to 255 readings in single unit increments

Optional Display: HI6150 7-inch (100 x 165mm) color TFT touchscreen for operation, setup, and user-friendly graphics

Standard Interfaces
- Dual port Ethernet and an embedded network switch

Stable Weight Reading
- WAVERSAVER® 0.25Hz minimum to 7.5Hz maximum
- WAVERSAVER+ dynamic filtering improves stability of static weight readings by a factor of 3

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

Units of Measure: Ounce, Pound, Ton, Gram, Kg, Metric Ton

Mode: Gross, net

Load Point Excitation
- Sensor Excitation 5VDC power drives up to eight 350-ohm load cells per channel with two junction boxes
- Sense, +5 Vdc
- Signal, -0.3 mV to +15 mV

Digital Inputs
- Standard — 2 digital Inputs / 2 digital outputs (mappable)

Power Requirement
- AC: 90-240VAC, 47-63Hz
- DC: 12-27VDC (do not exceed 30VDC)
- 10 watts maximum

Operating Temperature
- -10° to +40°C (14° to 104°F)

Humidity
- 0-90% non-condensing

Enclosure
- Panel/remote mount
- DIN mount
- Optional Stainless steel PMWS
- For hazardous locations, recommend Type 4X/NEMA 4X

Environmental:
- Instrument: IP-54
- Display: IP65 (Type 4/4X)

Approvals
- CE, NTEP
- UL/CUL (ordinary locations)
- PROFINET (PI) & EtherNet/IP (ODVA Level III)
- Hazardous: Class I, II, III/Div2

Network Integration Tools
- Rockwell Automation EDS_AOPs, AOIs; as well as GSDML and PROFINET GDS files

Dimensions
- 6.15 in L x 4.08 in W x 3.36 H (156.2 mm x 103.5 mm x 82.8 mm)
- HI6150 Touchscreen Display 7.30 in L x 0.70 in W x 4.60 in H (185.4 mm x 17.8 mm x 116.8 mm)
- DIN Rail Mounts: Add 0.67 in or 16.9 mm to Width
- Connectors: Add 0.44 in or 11.2 mm to Width

Warranty
- Two-year warranty against defects in workmanship

The rear panel of an HI6850 before connections.

HI 6850-SPWC OPTIONS

-GPRC	General Purpose Relay Card (up to 2 per instrument). Includes 8 DC open relays (NO,5-30 VDC, 1A) **One is required for Setpoint Control.**
-WS	Up to 3 additional weigh scale cards
-PM2	7" touchscreen Display
-DC	12-27VDC (do not exceed 30VDC)
-AC	0-240VAC, 47-63Hz

NETWORK OPTIONS

-EIP	EtherNet/IP® & Modbus TCP/IP
-PFN	Optional PROFINET® Card

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

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ISO 9001
BUREAU VERITAS
Certification

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