

4693i Intermediate Checkweigher

Introduction

Thompson Scale's 4693i Intermediate In-Motion Checkweigher is designed for institutional and packaged food manufacturing, specialty chemical, and corrosive or caustic product industries. It weighs products from 1 lb to 110 lbs with conveyor speeds in excess of 250 feet per minute, and production rates up to 60 units per minute.

The 4693i is available in stainless steel or powder coated mild steel and is designed to meet the demanding production needs for an easy-to-clean, low maintenance, yet highly accurate in-motion scale. For products that are within the 1 lb to 110 lbs range, the 4693i is the perfect choice.

A wide variety of weigh station conveyor lengths and widths are available to meet your specific application needs. Metering, pacing, reject, and material handling conveyors are available as well. Its standard I/O will interface to your new or existing metal detector, with the 4693i offering control of up to three reject devices for low/high/metal reject outputs.



Easy Configuration

The 4693i Intermediate Checkweigher features a food-grade belt driven by a newly developed motorized head pulley and food-grade rated drive components. Its unique load cell system is designed to provide a highly accurate and reliable weight each and every time. It also allows quick access for thorough cleaning and easy maintenance.

The 4693i offers washdown rated bearings, belt and drive components. The checkweigher's simple and clean design minimizes maintenance and the number of parts that can potentially wear out.

Quick Calibration

The 4693i only requires a single static calibration. Unlike other systems on the market, the 4693i utilizes a single calibration to provide accurate and repeatable weights over the range of the scale's capacity. There is no need for multi-pass dynamic calibrations every time product sizes or weights are changed. Simply enter the new product parameters and go – it's that simple.

Calibration of the 4693i is digital, with no pots to turn, and uses a single standard test weight. Easy to follow onscreen instructions with descriptive prompts guide you through calibration procedures with ease. A separate calibration check screen allows operators to verify calibration without having to access the calibration procedure. The calibration is password protected for added security and an audit trail for ISO or other quality assurance programs can be generated.



Checkweigher Controller

This checkweigher employs Thompson Scale's Model 4693 Checkweigher Controller to provide the most extensive feature set with the highest possible accuracy. The controller provides easy to read menus with both English and Spanish (French available soon) in full sentences for better comprehension. It even runs a complete self-diagnostics with errors described onscreen. Also, the Statistical Process Reporting (STPR) package can print unit weights and reports on standard size paper for analysis. Its modular design and the fact that it is easily expandable to interface with virtually any line or management tools, make the 4693i Checkweigher and Controller a highly flexible and reliable solution to all your checkweighing needs.

Specifications

Standard Construction

- UL, ULc and CE Approved electrical controls
- IP 66 (NEMA 4X) standard
- Painted Mild or Stainless Steel weigh station construction
- USDA/FDA Approved conveyor belts
- Sealed Bearings for extended life and minimal maintenance
- Motorized Head Pulley, rated IP65 for wet, corrosive environments
- Conveyor Lengths from 24" to 36" overall length, widths from 12" to 36"
- 4" Diameter Dynamically Balanced Head & Tail Rollers
- Variable Frequency Drive Controls included
- Adjustable Leveling Feet
- Wall or Frame Mountable Scale Control Enclosure for flexibility during installation

Performance Features

- English and Spanish Menus in full sentences for better comprehension. French available soon
- Conveyor Speeds up to 250 ft (60.96 m) per minute
- Production Rates to 60 units per minute
- Capacities from 1 lb to 110 lbs
- Embedded True-Multitasking Operating System
- High Load Cell Sample Rate and A/D conversion rate
- 5 Pole Low-Pass Filter
- Hardware and Program Adjustable Filtering
- Selectable Resolution
- Selectable Display Divisions
- Accuracy as great as $\pm 0.1\%$ @ 2 Sigma*
- Repeatability as great as $\pm 0.05\%$ @ 2 Sigma*
- Calibration Audit Trail for compliance requirements
- Fast-response Load Cells

Scale Controller Features

- 75-Product Memory Storage
- Adjustable Five Weight Zones per product
 - Displays:
 - Last Unit Weight
 - Gross/Net
 - Weight Conversion (lb, kg, oz, g)
 - Product Name
 - Target Weight
 - Product Number
 - Total Accumulated Weight
 - Total Accumulated Units
 - Units Per Minute
 - Mean Unit Weight
- 5-Zone Weight Display with zone counters for each
- Direct interface to Eriez[®] Metal Detectors
- Three Reject Outputs: High, Low, Metal
- Reject Outputs can be configured in any combination
- Adjustable Reject Delay and Duration
- Retentive Reject Timers for up to 8 units
- Trend Alarm with adjustable reject populations
- Modular Function-Specific Card Rack



Internal View of Controller

- Complete Self-Diagnostics with errors described onscreen
- 20 mA Current Loop Serial Port transmits weight data in either of 2 modes

Powerful Statistical Options

- True SPC Closed-Loop Feedback Programs; Servo, Serial or counter feedback available
- Established Interfaces to a variety of filling systems
- Software-Activated Statistical Analysis production reporting port
- Quad-Port Serial Card with RS-485, RS-422, RS-232, 20 mA active
- STPR Statistical Production Reporting Package prints unit weights and reports on standard 8½" x 11" paper
- Trend Alarm with adjustable High/Low reject parameters and sample populations

Flexible Hardware Options

- Peripheral Conveyors: in-feed and out-feed, metering, accumulation tables, and reject bins
- Reject Options: air blow-off, side-pusher, diverter, or drop gate, three or five-zone classifiers
- Reject Bins and accumulation conveyors
- Full System Electrical Controls, turn-key, PLC, and conveyor layout capabilities
- Hazardous Area Protection up to Class I Division 1, Groups B, C, & D (Zone 1)

*Product dependent. Contact factory for specific product accuracy.

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