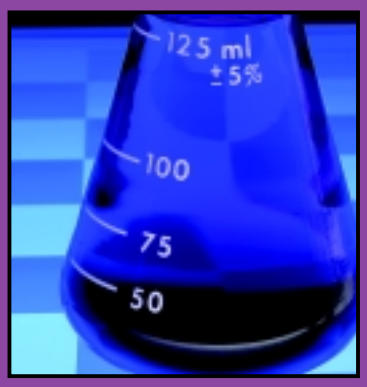
Parts Counting



Model 370
Model 375
Model 672
Model 675

SPX GSE scale systems

Parts Counting and Inventory Management Systems

We've built our reputation by providing high performance parts counting products. GSE precision parts counting systems are designed to provide years of reliable performance in a variety of environments and applications. Intuitive, easy to use counting and weighing routines range from one keystroke operation to cycle counting with data acquisition for a complete inventory management solution.

Accuracy is important whether your counting application is document distribution, shipping and receiving, job picking or factory-wide inventory management. Inaccurate counts can be costly for customers in a shortage situation or costly for you in an overage situation.

GSE precision parts counters provide a variety of features for improving counting accuracy and efficiency.

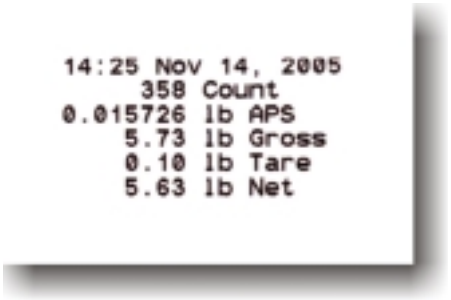
Model 370 Parts Counting Scale

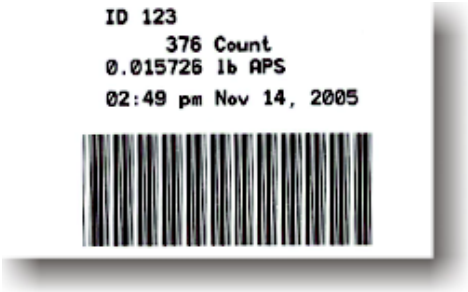
Model 370
Parts Counting Scale

Designed as an entry-level to mid-level unit, weighing and counting parts has never been easier with the Model 370 Parts Counting Scale. Basic one key operation allows for quick and efficient counting and improved productivity in applications where APW (average piece weights) are established frequently.

Features

- **Simple one button operation** immediately improves counting efficiencies and virtually eliminates the need for operator training. Basic counting instructions printed on front panel enable even a novice to quickly count parts.
- **Bright, LED display** is easy to read in any light situation.
- **One keystroke** toggling between parts counting mode and weighing mode.
- **Convenient carrying handles** facilitate mobility for counting or weighing in different areas within a facility.
- **Communicate** with printers, computers, and other peripheral devices using fixed format tickets and labels, or create custom labels with the Custom Transmit Table™. Labels can be created to contain bar code data with APW and TARE (container) weights.
- **Counting accuracy** is ensured with one million counts (1/1,000,000d) of internal resolution for counting, and weighing data, and APW calculations.
- **Wide range of capacities** allows you to select the right scale for the right application.
- **Further increase counting efficiencies** and expedite counting by connecting a bar code scanner for scanning APW and TARE weight information.
- **Easily integrates** with UPS Worldship® for streamlining shipping, receiving, importing, and exporting processes.





Model 375 Parts Counting Scale

The Model 375 has the same versatile features as the Model 370 plus numeric keys for manual entry of TARE weight or APW.

See 'Specifications' table for options.

Model 375
Parts Counting Scale

Model 675 Precision Counting Scale

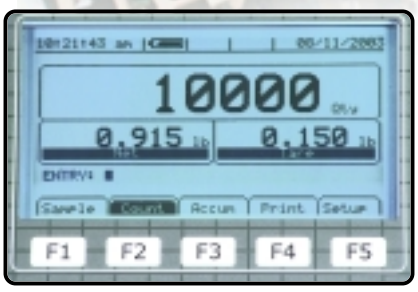
Model 675
Precision Counting Scale

The Model 675 fits well into demanding mid-level counting applications or sophisticated, factory-wide inventory management systems. With all of the available option modules, on-board configuration selections, a 1/1,000,000d internal counting resolution and 25 years of experience in refining our counting algorithms, counting accuracy is ensured from electronic parts to expensive machined parts.

Custom Transmit Tables ™
Input Interpreter Tables ™
Aluminum Die Cast Housing
Carrying Handles
Quick Change Load Cells

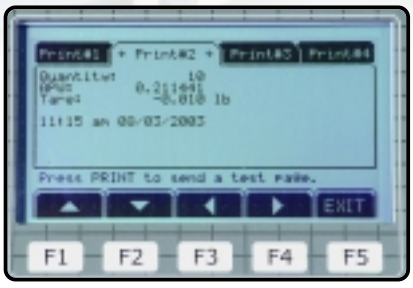
Features

- **APW Enhance Mode** improves accuracy while you count and eliminates the need to count large samples for an accurate APW (average piece weight).
- **Alphanumeric keypad** allows manual entry of product numbers and descriptions. Product information can also be transmitted to the Model 675 via bar code scanners, card readers and computers.
- **The standard 250 item memory** stores and recalls Product #, Description, APW, and Lot #. Memory can be easily reconfigured with up to 98 columns of associated Product # information.
- **Database Modules** can expand memory storage capabilities to include thousands of products. The actual number of products is directly related to the scope of information that will be stored with each Product #; for example, Time and Date of Transaction, Bin#, Employee#, Job#, and etc. can be stored per your application requirements.
- **Convenient carrying handles** facilitate mobility during battery operation.
- **Local scale capacities** range from 6 lb to 100 lb. Connect a range of remote platforms (500 g up to 100,000 lb) to the standard remote scale input. Two additional remote platforms can be connected for a total of 4 scales.
- **Barcode scanners and printer ports** are available to improve cycle counting and job picking efficiencies. Advanced communication protocols allow the Model 675 to integrate into most factory networks.
- **Accuracy settings from 90% to 99.96%** are available to ensure products are counted within acceptable tolerances.
- **LCD Graphic Display** provides detailed operator prompts. Prompts and operation can be modified to adapt to your application requirements.
- **Easily integrates with UPS Worldship®** for streamlining shipping, receiving, importing, and exporting processes.



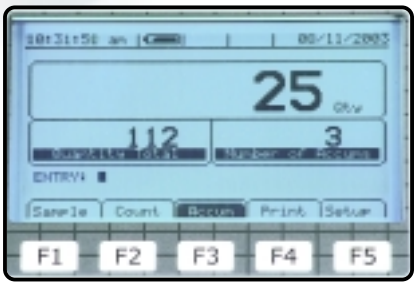
Application Display Styles

Multiple display style selections are available.



Easy View Data Output

Multiple onscreen printer and computer formats make data output selection easy.



Quick Count

Single menu soft-key operation makes counting parts simple and efficient.

Model 675 Integrates with Your Network

Using versatile communication protocols, the Model 675 communicates via point-to-point or standard fieldbus networks in a variety of formats to exchange plant floor data; minimizing maintenance costs and integration time.

Via Ethernet, RS232, RS485, and 20mA current loop, **Custom Transmit Tables™ and Input Interpreter Tables™** provide flexible system integration and weighing instrument communication.

The **Ethernet Module** supports DHCP Server, fixed IP address, Telnet Server or client, Modbus TCP/IP slave, and FTP client. A dynamic on board web server makes network configuration fast and simple, and provides instant remote access to scale weight and process data.

The **DeviceNet™ and Profibus® Modules** provide flexible I/O assemblies enabling access to all weight data and user defined process data. An on board auto configuration utility expedites setup by matching both EDS and GSD files.

Applications

Inventory Control

QA Inspection

Checkweighing

Parts Counting

Shipping

Negative Counting

Options

Battery Operation: Two rechargeable Battery Modules provide continuous 40 hour or 13 hour operation. To operate with 8 standard D-cells, a battery tray kit is available for 80 hours of continuous operation.

Multi Scale Module(s): The 675 2 scale standard system can be expanded to 4 scales by adding 2 MS modules.

Comm 3/4: Adds 2 additional RS232 full duplex communication ports.

Database Module(s): Up to 2MB additional database memory for data storage.

Computer Keyboard Module: Connects standard computer keyboard to scale.

RS485 Module: Multi drop up to 251 devices in half or full duplex to a distance of 4000 feet (1200 m). Utilizes RS232 port 1.

20 mA Current Loop: TX active or passive, RX-Passive, 9600 bps, 12 VDC, 1000 feet (300 m). Utilizes RS232 port 1.

Ethernet Module: Supports DHCP Server, fixed IP address, Telnet Server/client, Modbus TCP/IP slave, and FTP client.

Analog Output Module: 0-10 VDC, 0-20 mA, or 4-20 mA, absolute zero and full scale values are programmable, 16 bit resolution.

Setpoint Option Module: Connect up to 128 optically isolated inputs or outputs.

Wedge Software: A database mining tool for viewing and updating stored data. Extract, store, modify, and return data to the instrument easily.

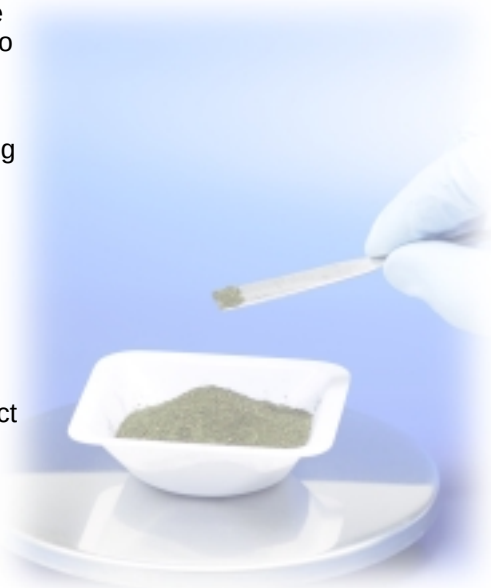
Model 672 Precision Counting Scale

Specifically designed for counting and weighing small, lightweight product, the Model 672 brings a new level of sophistication to lightweight applications.
Basic weighing and counting routines make the 672 easy to use for everyday weighing and counting, while programmable features expand the applications to tolerance check weighing, precision formulation and lot sampling.

Model 672
Precision Counting Scale

Features

- **A standard remote scale** input port is available for connecting a higher capacity scale for counting bulk product.
- **Local scale capacities** are 500 g (1 lb) and 1000 g (2 lb).
- **Industrial overload protection** helps prevent load sensor damage due to accidental overload. The stainless steel loading surface is designed to transfer an overload to the cast aluminum housing, while the innovative overload pin provides redundant overload protection.
- **APW Enhance Mode** improves accuracy as you count while eliminating the need to count large samples for an accurate APW (average piece weight). Alphanumeric keypad allows manual entry of product numbers and descriptions.
- **Product information** can also be transmitted to the Model 672 via bar code scanners, card readers and computers.
- **A convenient carrying handle** facilitates mobility.
- **Accuracy settings** from 90 % to 99.96 % are available to ensure product is counted within acceptable tolerances.



Applications

Quality Assurance Verification

Part Tolerance Checkweighing

Parts Counting and Accumulation

Lot Sampling with Data Collection

Precision Formulation and Batching

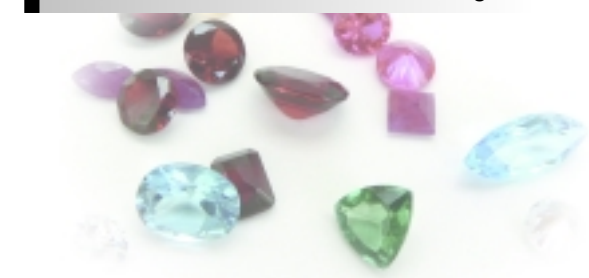
Options

Database Module: 256K, 1MB, or 2MB

Ethernet Module: Supports DHCP Server, fixed IP address, Telnet Server/Client, Modbus TCP/IP slave and FTP client.

Wedge Software: A database mining tool for viewing and updating stored data. Extract, store, modify, and return data to the instrument easily.

Wedge Software



Specifications

	Model 370 / 375	Model 672	Model 675
PERFORMANCE			
Capacities (lb)	6 lb, 15 lb, 30 lb, 60 lb, 100 lb	500 g (1 lb), 1000 g (2 lb)	6 lb, 15 lb, 30 lb, 60 lb, 100 lb
Internal Resolution	1,000,000d	1,000,000d	1,000,000d
A/D Filtering	GSE FIR (Finite Impulse Response)	GSE FIR (Finite Impulse Response)	GSE FIR (Finite Impulse Response)
Non-Linearity	0.017 % max, 350 ohm load cell dependent	0.02 % of Full Scale	0.017 % max, 350 ohm load cell dependent
Overload Protection	5 Point Overload Protection	Redundant overload system w/ ltd travel suspension protects scale from overloads >200 lb	5 Point Overload Protection
Warranty	2 Year Limited	2 Year Limited	2 Year Limited
COMMUNICATION			
Ports 1–4	1 Bi-directional RS232 port	2 Bi-directional RS232 Full Duplex, SW & HW Handshake ports, Optional Ethernet	2 Bi-directional RS232 Full Duplex, SW & HW Handshake ports, Optional expansion to 4 ports, Optional Ethernet
Protocols	ASCII Standard	Modbus RTU and ASCII Standard	Modbus RTU and ASCII Standard
Baud Rate	150–115K bps (port 1)	150–58K bps (port 1) 150–38.4 bps (port 2)	150–115K bps (port 1) 150–38.4 bps (port 2, 3, 4)
ELECTRICAL			
Power Requirements	120 VAC 60 Hz Wall transformer Incl. or 12 to 36 VDC	120 VAC 60 Hz Wall transformer Incl. or 12 to 36 VDC	90–250 VAC, 10–32 VDC
Excitation Voltage	10 VDC, Short circuit protected	10 VDC, Short circuit protected	10 VDC, Short circuit protected
Excitation Power	(1) 350 ohm load cell	(5) 350 ohm load cells	(14) 350 ohm load cells
Excitation Current	200 mA, Short Circuit protected	200 mA Short Circuit protected	400 mA, Short Circuit protected
Input Signal Connect	6 Conductors with Sense Leads	4 or 6 Conductors with Sense Leads	4 or 6 Conductors with Sense Leads
Fuse	2A	2A	0.8 A slow-blow (when using AC power)
Battery (options)	30 Hour NiMH Battery. Tray for 8 D-Cells - 60 hours (batteries not included).	N/A	40 or 13 Hour NiMH Battery w/quick charge circuit. Tray for 8 D-Cells - 80 hours (batteries not included).
PHYSICAL			
Housing Material	Powder Coat Cast Aluminum	Powder Coat Cast Aluminum	Powder Coat Cast Aluminum
Count/Weigh Surface	12" x 12" Stainless Steel (6 lb, 8" x 10")	4.75" Stainless Steel w/ Shock Protection	12" x 12" Stainless Steel (6 lb, 8" x 10")
Display	0.8" LED Display	8 line x 40 character LCD backlit graphic display	16 line x 40 character EDT LCD Graphic with White LED Backlight
Keypad	6 Key (370), 18 Key (375) International, Tactile membrane	26 Key, Polymeric membrane plate	27 Key, Polymeric membrane plate
Dimensions	14.38" W (at handles) x 17.30" L x 5.63" H	9.50" W x 11.62" L x 3.52" H	14.38" W (at handles) x 17.30" L x 5.63" H
Number of Scales	1 Local	1 Local + 1 Remote Input Standard	1 Local + 1 Remote Input Standard, Optional Total 4 with Multi-Scale option
Time Date Clock	Non-Volatile Battery Backed	Volatile	Non-Volatile Battery Backed
FRAM Standard Database Memory	Not Available	Up to 16K	Up to 56K
OPTIONS			
Multi Scale Module	N/A	N/A	2 additional scale inputs (installed internally)
Database Module	N/A	256K, 1 MB or 2 MB	256K, 1 MB or 2 MB
Computer Keyboard Module w/ Comm Port 3 & 4	N/A	N/A	Keyboard connection (uses port 4)
RS485 Module	Half/Full Duplex up to 4000 ft, 115K bps max (uses port 1)	N/A	Half/Full Duplex up to 4000 ft, 115K bps max (uses port 1)
20 mA Current Loop	Isolated TX-Active/Passive, RX-Passive, 9600 bps max, 12 VDC, 1000 ft (uses port 1)	N/A	Isolated TX-Active/Passive, RX-Passive, 9600 bps max, 12 VDC, 1000 ft (uses port 1)
Ethernet Module	N/A	Supports DHCP Server, fixed IP address, Telnet Server/ Client, Modbus TCP/IP slave, and FTP client	Supports DHCP Server, fixed IP address, Telnet Server/Client, Modbus TCP/IP slave, and FTP client (disables port 3)
GSE ReFlash	Download new firmware via RS232 port	Download new firmware via RS232 port	Download new firmware via RS232 port
Analog Output Module	16 bit, 0–10 VDC, 0–20 mA, or 4–20 mA	N/A	16 bit, 0–10 VDC, 0–20 mA, or 4–20 mA
Setpoint Option Module	Available	N/A	Available
I/O Relays	1A AC, 2A DC, Optically isolated	N/A	1A AC, 2A DC, Optically isolated

Product Line

- Parts Counting
- Floor Scales
- Portable Scales
- Bench Platforms
- Indicators
- Airline Systems
- Hazardous Area Weighing
- Software/Peripherals
- Checkweighers
- Tank & Vessel Weighing Assembly

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12/05 10M Bulletin #RPI102