

Introduction of SuZhou Microtess Technology Co., Ltd.

Microtess Technology is an innovative company that leads the field of intelligent weighing technology. Committed to the research, development, production, and manufacturing of "high-precision, digital, and intelligent" weighing products, the company builds on its extensive experience in the analog weighing industry to set high standards in digital product lines. Microtess is driving the adoption of digital products and leading industry trends, maintaining a significant technological edge in both domestic and international digital weighing applications.

Our international trade team is equipped with professional market analysis skills and rich customer service experience, enabling us to effectively meet the needs of global customers by offering customized products and technical support. Our digital and analog weighing load cells, electronic scales, weighing controllers, explosion-proof electronic scales, and automated filling machines are widely used around the world and have received consistent praise from our users.

Introduction to Computerized Filling Scale

1.Main Technical Parameters:

- Power Supply: 3000mAh rechargeable lithium-ion battery
(one charge lasts over 3 days)
- Accuracy Class: Class III
- Graduation Value: 100g
- Minimum Weighing: 2kg
- Maximum Weighing: 120kg
- Storage Capacity: 8,000 filling records (can be stored offline within the filling scale)

2.Product Structure and Appearance



The product is mainly composed of three parts:

1. Display controller assembly
2. U-shaped pipeline fixing bracket assembly
3. Three-layer buffer structure scale platform assembly



The scale body is made of high-strength ductile cast iron and features a unique three-layer structure design: upper, middle, and lower scale platforms. A multi-point spring buffer connection is used between the upper and middle platforms, providing effective protection for the load cell. **This design effectively overcomes the common issue of rigid load cell connections, which users frequently complain about due to the high failure rate of load cell damage.**

3.Product Functions and Features

Main Functions:

- 1) Automatically stops at the preset weight.
- 2) Automatically records and saves the filling data for each gas cylinder.
- 3) Offers multiple filling modes, allowing users to flexibly choose according to their needs.
- 4) Displays the filling data for each cylinder intuitively, along with the total daily filling volume.
- 5) Clock function: displays the current time on the screen and the filling duration for each gas cylinder.
- 6) Automatic tare: the scale platform automatically resets to zero (whether the platform gains or loses weight, or the filling nozzle is replaced, it will automatically reset without affecting measurement accuracy).
- 7) Statistical function: offers various statistical methods, allowing users to calculate the total filling volume over a period, the number and volume of cylinders filled for different specifications, as well as the number and volume of cylinders filled per batch.
- 8) Query function: allows for batch queries, single-cylinder queries, and time period queries for cylinder filling information.

- 9) Features an automatic rejection function when the cylinder weight falls below the empty cylinder lower limit, and a filling upper limit restriction to prevent accidental overfilling.
- 10) Automatically generates a unique filling number for each gas cylinder during the filling process, which is displayed on the scale's screen, ensuring consistency between the monitoring software and actual records.
- 11) Password protection is provided for modifying internal settings and summarizing important data to prevent intentional tampering.
- 12) The system employs intelligent detection technology, which provides detailed information in case of a malfunction in any part of the equipment, enabling maintenance personnel to resolve issues in the shortest possible time.

Key Features (Compared to Similar Electronic Scales):

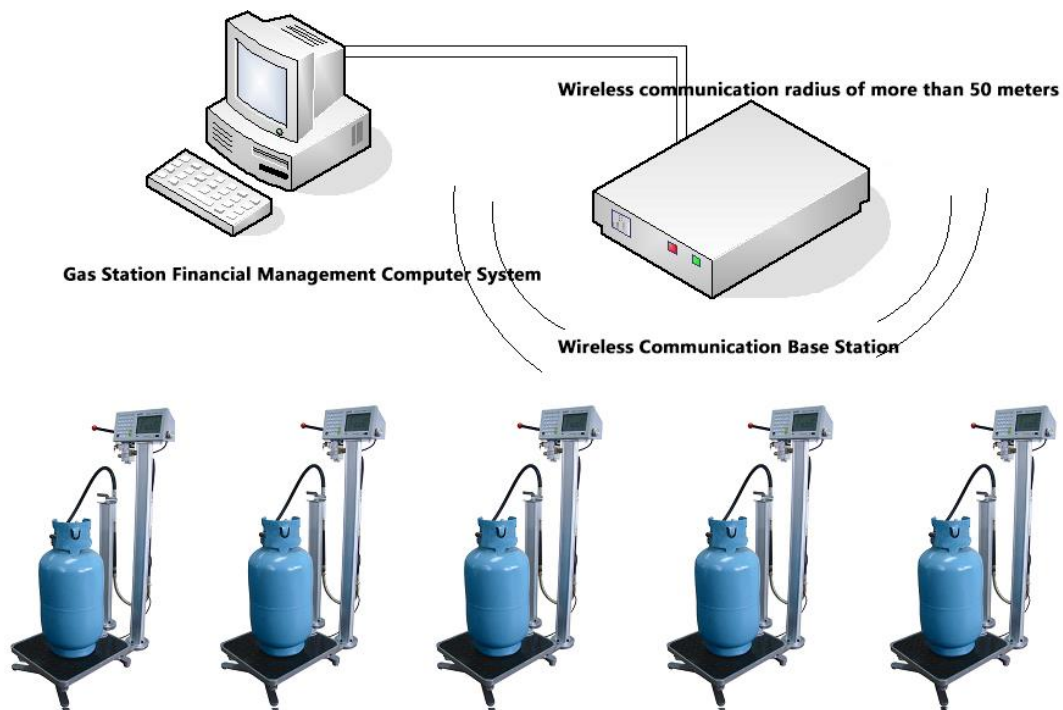
- 1) **No Need for Explosion-Proof Power Line Installation:** This eliminates potential safety hazards associated with improper installation or maintenance of power lines.
- 2) **Modular Structure Design:** Installation and maintenance are straightforward. Once the initial installation is complete, users can maintain the system independently without requiring on-site support from manufacturer personnel, alleviating any concerns.
- 3) **Large-Diameter Automatic Shutoff Valve:** This valve has a much greater tolerance for impurities in the gas source compared to electromagnetic valves, eliminating the need for a dedicated filtering system. It is less prone to clogging and damage.
- 4) **Complete Button Layout:** One-button operation with each function having its dedicated button. This avoids the complexity of combination key operations and memory, making it simple to use without the need for specialized training for routine filling operations.
- 5) **Large Screen LCD Display with English Characters:** Comprehensive and intuitive display of filling information, overcoming the limitations of LED displays that can be difficult to understand.
- 6) **Innovative Patent U-Pipe Structure Design:** This design automatically compensates for measurement errors caused by changes in pipeline pressure, effectively addressing a common hidden quality defect in typical filling scales.
- 7) **Anti-Cheating and Overfilling Protection:** Equipped with a reliable lock-controlled valve for management convenience. After work hours, the valve can be locked, preventing unauthorized use of the filling scale without the key, thus eliminating unauthorized refilling situations.
- 8) **Built-in Wireless Communication Module:** Enables real-time communication between the management center and the filling scale, allowing for instant uploading of filling information. The management center can also control each filling scale's operations in real time, overcoming the complications and high failure rates of wired communication, making it ready for immediate use without the need for installation or maintenance of communication lines.
- 9) **Easy Upgrades and Maintenance:** Upgrades can be done directly through software without needing to replace any hardware, allowing users to complete upgrades themselves.

Appendix: Meanings of the Three Filling Modes

- (1) Standard Filling: This mode automatically determines the specifications and model of the gas cylinder based on its weight. It calculates the remaining gas and the actual required filling amount using the original weight of the cylinder, helping enterprises save gas resources and improve economic efficiency.
- (2) Total Weight Filling Mode: This mode fills the cylinder based on the input of the cylinder's weight and the total weight of the gas.
- (3) Net Weight Filling Mode: This mode fills the cylinder based on the input of the actual amount to be filled.

Internal System Solution for Gas Stations

The schematic diagram is as follows:



The gas station uses an explosion-proof communication base station to achieve wireless connections between the base station and each computerized filling scale. The financial computer at the gas station is connected to the communication base station via a network cable. Each computerized filling scale is

equipped with a wireless communication module with a radius of more than 50 meters. This setup enables wireless networking between the financial computer and each computerized filling scale.

Wireless System Operation Process:

1) Internal Company Cylinder Filling Management

When the filling operator fills cylinders for internal distribution, they simply need to fill each cylinder one by one. The computerized filling scale will automatically record detailed information for each filled cylinder (scale number, filling number, start time, end time, initial cylinder weight, cylinder weight after filling, etc.) and automatically send it to the financial computer. The financial personnel will analyze and compile the data, and then report it daily to the company's central computer system through the network system.

2) Anti-Cheating Management

- The computerized filling scale records detailed information for each filling session (initial cylinder weight, final cylinder weight, filling duration, filling number, start time, and end time). All information is traceable, which helps to prevent common fraudulent activities or personal favors.
- The filling control program detects and records any abnormal conditions during the filling process, preventing the operator from engaging in improper operations.
- During non-working hours, a designated person will lock the control valve of the filling scale to effectively prevent unauthorized filling.

3) Networking between the Gas Station and the Parent Company

If the parent company needs to check the sales situation of the subordinate gas station, this can be achieved through the following methods:

1) Solution Description:

The subordinate gas station uses GPRS to send daily operational and filling information to the parent company's online mailbox. There is no need for specialized communication line installation and maintenance. The hardware and communication costs are low, and mature commercial products can be used, fully leveraging the resources of the telecom public network. This method is safe, reliable, and requires no special maintenance.

2) Upgrades and Maintenance

This communication method between the parent company and the subordinate gas station is a typical and common networking method for internal communication between geographically dispersed, remote subordinate units and the parent company. The technology is mature, and any future upgrades or modifications can be easily implemented. With the original design unit's technical support and service, customers need not worry about future issues.