



simpler, smarter, and more efficient

Make enterprise material management



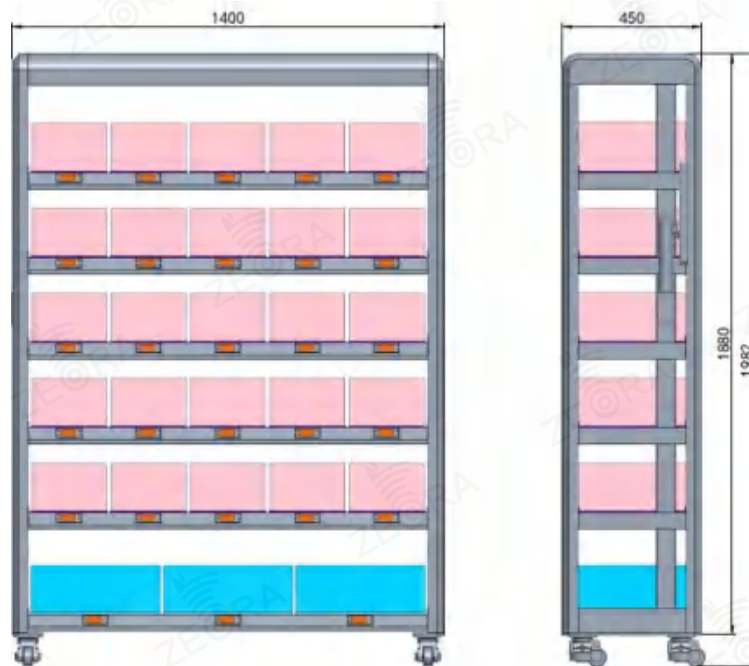
specification

KEY CABINET PRODUCT SPECIFICATION

Smart Weighing Shelf: ZSW-W01

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1. Product Image



II. Product Overview

The ZSW-W02 Intelligent Weighing Shelf is a smart warehousing solution specifically designed for unmanned material storage facilities and line-side warehouses. As a core component of automated warehousing systems, it integrates high-precision weighing technology, IoT capabilities, and intelligent interconnection mechanisms to enable fully automated management throughout the entire material lifecycle. Built on advanced intelligent weighing technology, this system operates continuously 24/7 without manual intervention. When integrated with smart vertical checkout terminals (ZSW-D02) and paired with devices such as smart access control systems (ZSW-D01) or smart pass-through gates (ZSW-D05), it creates a comprehensive unmanned warehouse solution for consumable materials, delivering a complete closed-loop management system covering material receipt, location tracking, issuance, inventory counting, and data analysis. This eliminates the cumbersome processes of manual scanning and data entry, significantly enhancing warehouse management efficiency and data accuracy.

III. Application Scenarios

(1) Industrial Line-side Warehouse: Designed for use alongside production lines in industries such as automotive manufacturing, electronic component processing, and mechanical machining, it stores

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tools, fixtures, components, consumables, and other materials to enable employees to access them promptly, reduce material waiting time, and ensure continuous production line operation.

(2) Unmanned Material Warehouse: Suitable for scenarios such as material storage and manufacturing facility warehouses, it enables automated collection, dispatch, storage, and inventory management of standardized materials, reducing labor costs and improving warehouse space utilization.

(3) Office and Laboratory Storage: Suitable for corporate office consumables warehouses and research laboratory reagent/consumable storage areas, enabling centralized management of office supplies and experimental reagents while standardizing requisition procedures and ensuring data traceability.

IV. Product Features

The system verifies personnel information using smart access control (ZSW-D01) or smart passageway gates (ZSW-D05), supporting multiple authentication methods including facial recognition, scanning, account passwords, and card swiping. After completing authorization verification, employees can seamlessly collect or return materials through the integrated ZSW-D05 vertical smart settlement terminal without any manual intervention.

(1) Fully automated weight sensing: Each storage bay is equipped with a high-precision weighing module. When materials are retrieved or returned, the system automatically determines quantity based on weight changes, eliminating manual scanning and data entry steps while preventing human errors and ensuring real-time accuracy of data.

(2) One-click efficient inventory counting: Supports completing daily and monthly inventory checks within 10 seconds, automatically verifies stock levels against weight data, generates inventory reports, significantly reduces manual workload, and enhances warehouse management efficiency.

(3) Precise Storage Location Mapping: Materials are uniquely linked to specific storage locations. The system continuously records each location's material details, inventory levels, and usage history, while displaying real-time information — including material names, specifications, and remaining quantities—via electronic shelf labels for quick location tracking and inspection.

(4) Real-time data synchronization and analysis: Collects data on material receipt, issuance, and inventory changes throughout the process, synchronizing it in real time to the management system for statistical analysis.

(5) Flexible adaptation for diverse materials: Supports material

management across various specifications and weights, allowing adjustment of storage location layouts and weighing parameters based on material characteristics to meet the varied storage requirements of unmanned material warehouses and line-side warehouses.

(6) Stable and reliable operation: Built with high-quality materials and industrial-grade design, it is tailored for complex warehouse environments, supports 24/7 uninterrupted operation, and features local data caching and remote data synchronization to ensure data integrity.

V. Specifications and Parameters

product model	ZSW-W01
Total Dimensions	1982*1400*450 mm (height * width * depth)
capacity	5 floors, totaling 23 storage spaces.
material quality	Material: High-quality galvanized steel plate with a thickness of 1.2 mm
Weighing Module	Equipped with a high-precision weighing module, offering a maximum capacity of 40 kg and weighing accuracy of 1 g.
Electronic Shelf Label	2.8-inch LCD screen (optional)
supply electricity	AC220V 50Hz 150W

VI. Precautions

The device must be installed in a flat, dry, and well-ventilated indoor environment, avoiding direct sunlight, humid conditions, or areas with severe dust exposure.

Power supply must strictly adhere to the rated electrical parameters to prevent equipment failure caused by voltage instability or overload.

Perform regular cleaning and maintenance of the cabinet, inspect components such as locks, sensors, screens, and communication interfaces to ensure proper equipment operation.

Administrators must regularly back up data and update system versions promptly to ensure device functionality stability and data security.

Prohibit violent lock-breaking or cabinet impact; such actions will shorten equipment lifespan and result in losses that must be borne by the user.