

# AUTOMATIC INDUSTRIAL ELECTRONIC BALANCE TEST SYSTEM

## CODE RBT-8309

CUSTOM  
MADE

HIGH  
ACCURACY

DATA  
OUTPUT

### ROBOT

- 6-axis industrial robot for high speed and precision, IP67, triple protection
- Industrial electronic balance test system automatically tests the weight of the workpiece and provides real-time feedback to the control system
- Control system Modbus Tcp via bus communication, high speed, high efficiency and easy to extend

### INDUSTRIAL ELECTRONIC BALANCE

- Electromagnetic balanced sensor
- Compensates for zero stability and weighing accuracy by loading accurately at multiple temperature points
- 304 stainless steel weighing pan, acid and corrosion resistant
- Zero-setting, weighing, subtracting tare value
- Administrator permissions
- Split-type touchscreen display
- Data output
- Manual screen off, screen saver
- Unit: g, kg, lb, ct



### measurement functions:



Weighing

This application determines the weight of the object to be weighed within the specific weighing range of the device



Mixing

The application allows up to 99 ingredients for a mixture or recipe to be placed sequentially in a container. After each placement of an ingredient, the balance will automatically tare the weight and can display the individual or total weight of the ingredients



Statistic

The application can save up to 99 weighing values and calculated values, and perform statistical evaluations



Component

The application can sum up to 99 weighing values, can weigh components in different containers, and can tare each container before weighing each component



Density

The application can determine the density of solid materials based on the buoyancy method (**powder density cannot be tested, no density components are supplied as standard**)



Percentage

This application allows the determination of the percentage or percentage difference of the weighed object based on a reference weight



Transition

The application can multiply the weighing value with a customisable coefficient to obtain a converted measurement, the last entered coefficient is saved when the power supply is interrupted



Animal weighing

The application is suitable for moving weights (e.g. live animals) and for weighing in unstable environments, where a measuring cycle with a defined number of measurements is performed automatically for each object to be weighed, the average value is determined from the individual measurements and displayed as a result



Check weighing

The application checks that the weighing value is within the specified upper and lower limits and determines the test result, allowing weighing of a specific rated weight



Peak holding

This application determines the maximum weighing value (peak value) of a sample and displays the value for up to 5 seconds after the balance has been unloaded



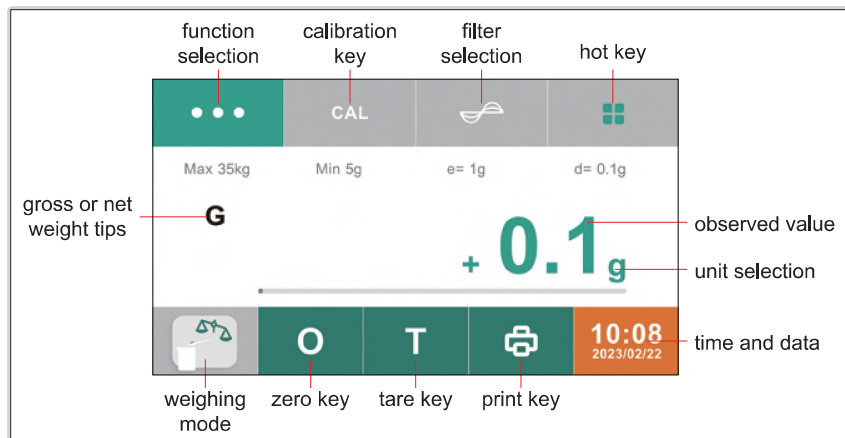
Counting

The application counts almost identical piece weights by comparing them to a reference sample

## operation process

- Step 1: Place the workpiece manually on the positioning block in the loading area and position it on the right side against the edge.
- Step 2: Press the reset button to return the robot and cylinder to the initial position.
- Step 3: Press the start button, the system prompts whether the workpiece is correctly placed and click OK.
- Step 4: The robot grabs the workpiece and places it onto the custom fixture.
- Step 5: Industrial electronic balance start measurement and output results.
- Step 6: The robot removes the workpiece and places the workpiece in the OK or NG station according to the measurement results.

## weighing test interface



## SPECIFICATION

|                                |                             |                      |
|--------------------------------|-----------------------------|----------------------|
| Robot                          | Robot arm spreading         | 1650mm               |
|                                | Max. weight of workpiece    | 20kg                 |
|                                | Repeat path accuracy        | ±0.13mm              |
|                                | Repeat positioning accuracy | ±0.04mm              |
|                                | Number of control axis      | 6                    |
|                                | Communication protocols     | Ethernet Modbus Tcp  |
| Industrial electronic balance* | Weighing capacity           | 20kg                 |
|                                | Minimal load                | 5g                   |
|                                | Readability (d)             | 0.1g                 |
|                                | Repeatability               | ±0.1g                |
|                                | Linearity                   | ±0.2g                |
|                                | Calibration method          | external calibration |
|                                | Weight of calibration       | 10kg                 |
|                                | Stabilization time          | 2s                   |
|                                | Dimension of pan            | 360×250mm            |

## STANDARD DELIVERY

|                               |                       |
|-------------------------------|-----------------------|
| Robotic system                | robot body            |
|                               | robot control cabinet |
|                               | programming guide     |
| Industrial electronic balance | 1 pc                  |
| Control touch screen          | 1 set                 |
| Control box                   | 1 set                 |

\*The quick measurement system is available in different models depending on the workpiece