



# DEFENDER<sup>®</sup> 5000

Standard Bench Scales



## *Multifunctional Bench Scale for Standard Industrial Applications*

The OHAUS next generation Defender 5000 Series multifunctional bench scale is ideal for a multitude of applications, including production, packaging, inventory and shipping. Built durably and equipped with advanced features such as maximum configurability print output, GMP/GLP data output, library/user management, and multiple connectivity options - the Defender 5000 is designed to simplify demanding industrial and commercial applications.

### *Standard Features:*

- **Indicator Guides The User with On-Screen Prompts**  
See results clearly on the large backlit display. The alpha-numeric keypad and function keys allow for a simplified user experience. On-screen prompts and soft keys will guide you through the operation.
- **Durably Constructed To Withstand Harsh Industrial Environments**  
Durably constructed with a stainless steel platform, sand gray powder-coated steel frame and aluminum load cell, the Defender meets OIML/EC type approvals.
- **Multiple Application Modes and High Storage Capacity for Greater Flexibility**  
Features common industrial modes and supports a 50,000 item library and 1,000 user profiles which can be downloaded/uploaded for easy set-up (with SD Card.) Also equipped with GLP/GMP output capability with time/date for result traceability. Alibi memory available.
- **Multiple Connectivity Options for Convenient Data Transfer and Storage**  
Results can be stored in the Micro SD card. Data output via built-in RS232 or optional interfaces including second RS232/RS485/USB device, USB Host, Ethernet, Bluetooth/WiFi, Analog Output or Discrete I/O with relays.

*Ingeniously Practical*

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## Simplified Use

Results can be read easily on the Defender 5000's large transreflective dot matrix display, even in bright sunlight. The SmartText 3.0 interface will guide you through all of the Defender 5000's unique and advanced features. With five soft keys, SmartText 3.0 makes an advanced scale very simple to use, and reduces training time for operators.



## Durable Construction

With OIML/EC-type approvals, the Defender 5000 can be used for both general and legal-for-trade applications. For standard industrial applications, the Defender 5000 bench scales offer durable performance at a practical price.



## Simple Operation

Featuring most common applications including Percent Weighing, Parts Counting with APW optimization, Checkweighing or Checkcounting, Filling, and Dynamic Weighing or Display Hold, the Defender 5000 meets the weighing and measurement needs of practically every industrial application or manufacturing process. Many application modes eliminate the need for long and complicated manual calculations. GMP/GLP with time/date allows for traceability of results.

Equipped with Micro SD card, the Defender 5000 can support storage of up to 50,000 items and 1,000 user profiles. Weighing results can also be stored in Alibi or regular format, addressing all your data storage needs.



## Multiple Connectivity Options

Weighing results can be easily exported through the standard RS232 port. Additional connectivity options include a second RS232, RS485 or USB device; USB Host, Ethernet, and WiFi/Bluetooth.

Using the Analog option (either 4-20mA or 0-10V) or the two In/four Out Discrete I/O, the new Defender 5000 indicator can also be used for systems including PLCs.



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## Indicator Specifications

	TD52P	TD52XW
Construction	ABS plastic	304 stainless steel with sand blasting surface treatment
Protection	N/A	IP68
Weighing Units	kg, g, lb, oz, lb:oz, metric tonnes, short ton, custom unit	
Application Modes	Weighing, Percent Weighing, Piece Counting with Optimized APW, Checkweighing/Checkcounting, Filling, Dynamic Weighing/Display Hold	
Display	Dot matrix LCD with white LED backlight, 256 x 80 pixels	
Keyboard	6 function, 5 quick, 12 alpha numeric membrane switches	
Auto-zero Tracking	Off, 0.5 d, 1 d or 3 d	
Zeroing Range	2% or 100% of capacity	
Interface	Standard RS232, Optional Ethernet, WiFi/Bluetooth, RS232/RS485/USB, USB Host, Analog output, 2 In/4 Out digital I/O	
Power	100-240 VAC / 50/60 Hz Universal Power Supply, Rechargeable Lithium battery (Optional)	
Battery Life	20 hours continuous use	
Calibration	Zero, Span or 3 point-Linear	

## Front Mount Bench Scale Specifications

Model	D52P6RQDR5	D52P15RQDR5	D52P15RTDR5	D52P30RTDR5	D52P60RTDR5	D52P15RQDL5
Capacity × Readability	3/6 kg × 0.2/0.5 g	6/15 kg × 0.5/1 g		15/30 kg × 1/2 g	30/60 kg × 2/5 g	
Min APW (g)	0.01	0.025		0.05	0.1	0.025
Internal Counting Resolution	1:600000					
Linearity/Repeatability	± 2d					
Indicator	TD52P ABS Indicator					
Mount	Stainless steel front-mount bracket with handle					
Base Construction	Stainless steel removable weighing platform, powder-coated steel base construction, aluminum loadcell silicon sealed against moisture					
Base Dimensions	305 × 305 mm		305 × 355 mm		400 × 400 mm	
Safe Overload Capacity	150% of maximum capacity					
Stabilization Time	Within 1 second					
Operating Temperature Range	-10°C to 40°C					
Scale Dimensions (B × A × C × D × E × F)	305 × 305 × 95 × 60 × 118 × 588 mm		305 × 355 × 110 × 70 × 118 × 677 mm			400 × 400 × 110 × 70 × 118 × 677 mm
Shipping Dimensions (L × W × H)	480 × 445 × 363 mm					800 × 600 × 235 mm
Approx. Net Weight	10 kg		11 kg		17 kg	
Approx. Shipping Weight	11 kg		12 kg		19 kg	

Model	D52P30RQDL5	D52P60RQDL5	D52P60RTDL5	D52P150RTDL5	D52P60RQDX5	D52P150RQDX5
Capacity × Readability	30/60 kg × 2/5 g	30/60 kg × 2/5 g		60/150 kg × 5/10 g	30/60 kg × 2/5 g	60/150 kg × 5/10 g
Min APW (g)	0.05	0.1		0.25	0.1	0.25
Internal Counting Resolution	1:600000					
Linearity/Repeatability	± 2d					
Indicator	TD52P ABS Indicator					
Mount	Stainless steel front-mount bracket with handle					
Base Construction	Stainless steel removable weighing platform, powder-coated steel base construction, aluminum loadcell silicon-sealed against moisture					
Base Dimensions	400 × 400 mm		400 × 500 mm		500 × 500 mm	
Safe Overload Capacity	150% of maximum capacity					
Stabilization Time	Within 1 second					
Operating Temperature Range	-10°C to 40°C					
Scale Dimensions (B × A × C × D × E × F)	400 × 400 × 110 × 70 × 118 × 677 mm		400 × 500 × 120 × 80 × 118 × 772 mm		500 × 500 × 120 × 80 × 118 × 772 mm	
Shipping Dimensions (L × W × H)	800 × 600 × 235 mm		994 × 680 × 235 mm			
Approx. Net Weight	17 kg		20 kg		22 kg	
Approx. Shipping Weight	19 kg		23 kg		24 kg	

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## Application Modes



**Weighing:** Determine the weight of items in the selected unit of measure.



**Percent Weighing:** Measure the weight of a sample displayed as a percentage of a pre-established reference weight.



**Parts Counting:** Count samples of uniform weight. Advanced auto-optimization software recalculates the average piece of weight as the overall weight increases.



**Dynamic Weighing and Display Hold:** Weigh an unstable load. Scale takes an average of weights over a period of time. The Display Hold feature manually and automatically holds the last stable weight on the display.



**Checkweighing/Counting:** Compare the weight/count of a sample against target limits. Connect with Discrete I/O and Light Tower Kit for external check lights.



**Filling:** Fill a container to a target weight. Progress bar displays filling status. Connect with Discrete I/O option kit for auto-filling system.

## Other Standard Features and Equipment

User-configurable resolution up to dual range 15,000d/3,000e, 150% overload capacity protection, checkweighing symbols with selectable operation and audible signal settings, menu lock switch, multiple selectable operating languages, selectable environmental and auto-print settings, stability indicator, overload/underload indicators, selectable adjust contrast settings, auto-dim display, auto-off, auto tare, ABS plastic, 100-240 VAC 50/60 Hz internal universal power supply - Lithium Ion rechargeable battery with 20 hour standard continuous use (optional), non-slip adjustable rubber feet, a Wheel Kit option is also available for scales up to 300 kg.

## Additional Features

A total of six print templates are available to ensure you can print out all of the data you need. A simple template is predefined for quick printing, as well as five templates you can customize so you can print the exact information necessary for your application - eliminating confusion and time to sift through excess unnecessary data.

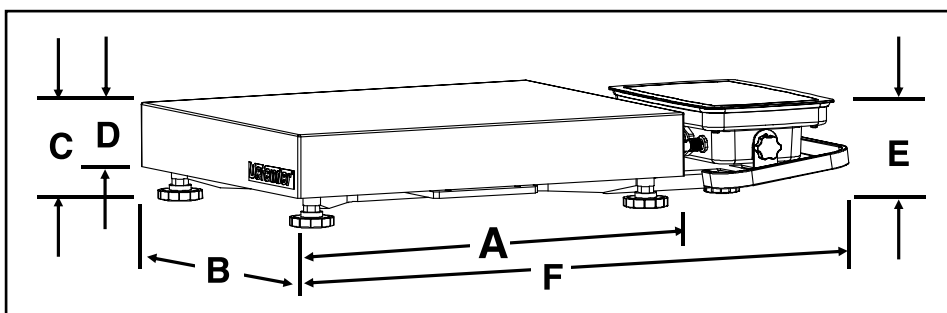
## Compliance

- **Metrology:** OIML R76 (Indicators: Certificate R76/2006-A-NL1-18.13; Load Cells: Certificates R60/2000-NL1-12-41, R60/2000-NL1-12-42, R60/2000-NL1-12-43, R60/2000-NL1-14.24)
- **Product Safety:** IEC/EN 61010-1; CAN/CSA C22.2 61010-1; UL61010-1
- **Electromagnetic Compatibility:** IEC/EN 61326-1 Class B, basic environments; FCC Part 15 Class B; Canada ICES-003 Class B
- **Compliance Marks:** CE; CSA; RCM

## Accessories

Battery Kit, Li-ion, TD52 .....	30424405	M16 Gland with Ferrite, to TD52 .....	30379716
USB Host for Dongle, TD52 .....	30424406	Micro SD Card, 8G .....	30303533
Light Tower, 3 Colors, 243mm, IP65 (Requires 30097591) .....	30424021	Analog Output Kit, TD52 <sup>3</sup> .....	30424403
In-use Cover Kit, TD52P .....	30424022	Second RS232/RS485/USB Kit, TD52 <sup>3</sup> .....	30424404
In-use Cover Kit, TD52XW .....	30424023	I/O with Relay (2 In/4 Out) <sup>3</sup> .....	30097591
In-use Cover set (10), TD52P .....	30469948	WiFi/BT Dongle, OHAUS <sup>2</sup> (Requires 30424406) . . .	30412537
In-use Cover set (10), TD52XW .....	30469949	Ethernet Kit, D52 <sup>2</sup> .....	30429666
Printer Holder Kit, D52 .....	30424025	Wheel Kit, Defender Series <sup>1</sup> .....	30372146
Wall Mount Kit, SST, TD52XW .....	30424026	Wheel Kit, SST, Defender Series <sup>1</sup> .....	30616409
Wall Mount Kit, CS, TD52P .....	30424027	Printer SF40A .....	30045641
LC Extension Cable, 9 meters, D52 <sup>1</sup> .....	30424409	USB Host for Flash Drive <sup>2</sup> .....	30572923

<sup>1</sup> Cannot be used for legal-for-trade applications    <sup>2</sup> Only one of them can be used at the same time    <sup>3</sup> Only one of them can be used at the same time



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The management system governing the manufacture of this product is ISO 9001:2015 certified.

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