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.

Unique 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

DEFENDER® 5000 Standard Bench Scales

Simplified Use

Results can be read easily on the Defender 5000's large transflective dot matrix display, even in bright sunlight. The SmarText 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.

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	

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Column Mount Bench Scale Specifications

Model	D52P6RQDR1	D52P15RQDR1	D52P15RQDL2	D52P30RQDL2	D52P60RQDL2	D52P60RQDX2	D52P150RQDX2
	D52XW6RQDR1	D52XW15RQDR1	D52XW15RQDL2	D52XW30RQDL2	D52XW60RQDL2	D52XW60RQDX2	D52XW150RQDX2
Capacity × Readability	3/6 kg × 0.2/0.5 g 6/12 lb × 0.0005/0.001 lb	6/15 kg × 0.5/1 g 12/30 lb × 0.001/0.002 lb		15/30 kg × 1/2 g 30/60 lb × 0.002/0.005 lb	30/60 kg × 2/5 g 60/120 lb × 0.005/0.01 lb		60/150 kg × 5/10 g 120/300 lb × 0.01/0.02 lb
Min APW (g)	0.01	0.025		0.05	0.1		0.25
Internal Counting Resolution	1:600000						
Certified Model	D52P6RQDR1-M	D52P15RQDR1-M	D52P15RQDL2-M	D52P30RQDL2-M	D52P60RQDL2-M	D52P60RQDX2-M	D52P150RQDX2-M
	D52XW6RQDR1-M	D52XW15RQDR1-M	D52XW15RQDL2-M	D52XW30RQDL2-M	D52XW60RQDL2-M	D52XW60RQDX2-M	D52XW150RQDX2-M
Certified Capacity × Readability	3/6 kg x 1/2 g	6/15 kg x 2/5 g		15/30 kg x 5/10 g	30/60 kg x 10/20 g		60/150 kg x 20/50 g
Min APW (g)	0.05	0.1		0.25	0.5		1
Internal Counting Resolution	1:120000	1:150000		1:120000			1:150000
Linearity/Repeatability	± 2d						
Indicator	D52Pxxxx: TD52P ABS Indicator D52XWxxxx: TD52XW Stainless Steel Indicator						
Column	350 mm powder-coated steel		680 mm powder-coated steel				
Base Construction	Stainless steel removable weighing platform, powder-coated steel base construction, aluminum loadcell silicon sealed against moisture						
Safe Overload Capacity	150% of maximum capacity						
Stabilization Time	Within 1 second						
Operating Temperature Range	-10℃ to 40℃						
D52P Scale Dimensions (B x A x C x D x E x F)	305 × 305 × 95 × 60 × 574 × 442 mm		400 × 400 × 110 × 70 × 903 × 570 mm			500 × 500 × 120 × 80 × 903 × 665 mm	
D52XW Scale Dimensions (B x A x C x D x E x F)	305 × 305 × 95 × 60 × 604 × 442 mm		400 × 400 × 110 × 70 × 934 × 570 mm			500 × 500 × 120 × 80 × 934 × 665 mm	
Shipping Dimensions (L x W x H)	480 x 445 x 363 mm		800 x 600 x 235 mm			994 x 680 x 235 mm	
Approx. Net Weight	D52P:10 kg / D52XW: 11 kg		D52P:17 kg / D52XW: 18 kg			D52P:24 kg / D52XW: 26 kg	
Approx. Shipping Weight	D52P:11 kg / D52XW: 12 kg		D52P:19 kg / D52XW: 21 kg			D52P:27 kg / D52XW: 28 kg	

Model	D52P60RQDV3	D52P150RQDV3	D52P300RQDV3	D52P150RTDV3	D52P300RTDV3	D52P600RTDV3
	D52XW60RQDV3	D52XW150RQDV3	D52XW300RQDV3	D52XW150RTDV3	D52XW300RTDV3	D52XW600RTDV3
Capacity × Readability	30/60 kg × 2/5 g 60/120 lb × 0.005/0.01 lb	60/150 kg × 5/10 g 120/300 lb × 0.01/0.02 lb	150/300 kg x 10/20 g 300/600 lb x 0.02/0.05 lb	60/150 kg × 5/10 g 120/300 lb × 0.01/0.02 lb	150/300 kg x 10/20 g 300/600 lb x 0.02/0.05 lb	300/600 kg x 20/50 g 600/1200 lb x 0.05/0.1 lb
Min APW (g)	0.1	0.25	0.5	0.25	0.5	1
Internal Counting Resolution	1:600000					
Certified Model	D52P60RQDV3-M	D52P150RQDV3-M	D52P300RQDV3-M	D52P150RTDV3-M	D52P300RTDV3-M	D52P600RTDV3-M
	D52XW60RQDV3-M	D52XW150RQDV3-M	D52XW300RQDV3-M	D52XW150RTDV3-M	D52XW300RTDV3-M	D52XW600RTDV3-M
Certified Capacity × Readability	30/60 kg x 10/20 g	60/150 kg x 20/50 g	150/300 kg x 50/100 g	60/150 kg × 20/50 g	150/300 kg × 50/100 g	300/600 kg × 100/200 g
Min APW (g)	0.5	1	2.5	1	2.5	5
Internal Counting Resolution	1:120000	1:150000	1:120000	1:150000	1:120000	
Linearity/Repeatability	± 2d					
Indicator	D52Pxxxx: TD52P ABS Indicator D52XWxxxx: TD52XW Stainless Steel Indicator					
Column	980 mm powder-coated steel					
Base Construction	Stainless steel removable weighing platform, powder-coated steel base construction, aluminum loadcell silicon sealed against moisture					
Safe Overload Capacity	150% of maximum capacity					
Stabilization Time	Within 1 second					
Operating Temperature Range	-10℃ to 40℃					
D52P Scale Dimensions (B x A x C x D x E x F)	610 × 610 × 130 × 90 × 1203 × 773 mm			600 × 800 × 132 × 90 × 1203 × 963 mm		
D52XW Scale Dimensions (B x A x C x D x E x F)	610 × 610 × 130 × 90 × 1234 × 773 mm			600 × 800 × 132 × 90 × 1234 × 963 mm		
Shipping Dimensions (L x W x H)	1165 x 780 x 235 mm					
Approx. Net Weight	D52P:39 kg / D52XW: 40 kg			D52P:47 kg / D52XW: 48 kg		
Approx. Shipping Weight	D52P:42 kg / D52XW: 43 kg			D52P:51 kg / D52XW: 52 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.
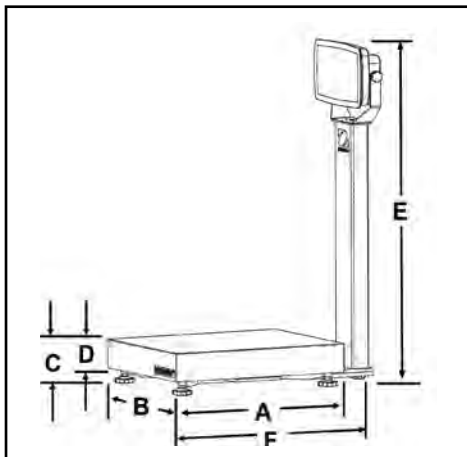
Compliance

• **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
USB Host for Dongle, TD52	30424406
Light Tower, 3 Colors, 243mm, IP65 (Requires 30097591)	30424021
In-use Cover Kit, TD52P	30424022
In-use Cover Kit, TD52XW	30424023
In-use Cover set (10), TD52P	30469948
In-use Cover set (10), TD52XW	30469949
Printer Holder Kit, D52	30424025
Wall Mount Kit, SST, TD52XW	30424026
Wall Mount Kit, CS, TD52P	30424027
LC Extension Cable, 9 meters, D52[1]	30424409
M16 Gland with Ferrite, to TD52	30379716
Micro SD Card, 8G	30303533
Analog Output Kit, TD52[3]	30424403
Second RS232/RS485/USB Kit, TD52[3]	30424404
I/O with Relay (2 In/4 Out)[3]	30097591
WiFi/BT Dongle, OHAUS[2] (Requires 30424406)	30412537
Ethernet Kit, D52[2]	30429666
Wheel Kit, Defender Series[1] (For bases up to 300 kg)	30372146
Wheel Kit, SST, Defender Series[1]	30616409
Printer SF40A	30045641
USB Host for Flash Drive[2]	30572923

[1] Cannot be used for legal-for-trade applications   [2] Only one of them can be used at the same time   [3] Only one of them can be used at the same time