

# Defender<sup>®</sup> 5000

Washdown 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, frame, column, IP67 loadcell and
  IP68/NEMA4X indicator. Supports up to 5,000d NTEP and Measurement Canada certified resolution for legal-for-trade applications.
- 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 the included Micro 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 2nd RS232/RS485/USB device, Ethernet, Bluetooth/WiFi, Analog Output and Discrete I/O with relays.

# **Defender**® **5000** Washdown 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**

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 Parts Counting with APW optimization, Checkweighing or Checkcounting, Percent Weighing, 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 the included 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; Ethernet; and WiFi/Bluetooth interfaces.

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**

	TD52XW
Construction	304 stainless steel with sand blasted surface treatment
Protection	IP68 / NEMA 4X
Weighing Units	lb, oz, lb:oz, kg, g, metric ton, short ton, custom unit
Application Modes	Weighing, Percent Weighing, Piece Counting with Optimized APW, Checkweighing/Checkcounting, 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, 2 <sup>nd</sup> RS232/RS485/USB, Analog Output, 2 In/4 Out Discrete I/O
Power	100-240 VAC / 50/60 Hz Universal Power Supply, rechargeable lithium battery (optional)
Battery Life	20 hours of continuous use
Calibration	Zero, Span or 3 point-Linear

# **Defender**® **5000** Washdown Bench Scales

72.8 lb / 33 kg

Approx. Shipping Weight

# **Column Mount Bench Scale Specifications**

Model	D52XW2WQS6	D52XW5WQS6	D52XW12WQS6	D52XW12WQR6	D52XW25WQR6	D52XW50WQR6	D52XW25WQL7	D52XW50WQL7	
Capacity × Readability	5 lb × 0.0002 lb 2.5 kg × 0.1 g	10 lb × 0.0005 lb 5 kg × 0.2 g		0.001 lb y × 0.5 g	50 lb × 0.002 lb 25 kg × 1 g	100 lb × 0.005 lb 50 kg × 2 g	50 lb × 0.002 lb 25 kg × 1 g	100 lb × 0.005 lb 50 kg × 2 g	
Maximum Displayed Resolution				1:25	5,000				
Capacity × Certified Readability	5 lb × 0.001 lb 2.5 kg × 0.5 g	10 lb × 0.002 lb 5 kg × 1 g			100 lb × 0.02 lb 50 kg × 10 g	50 lb × 0.01 lb 25 kg × 5 g	100 lb × 0.02 lb 50 kg × 10 g		
Min APW (g)	0.005	0.01	0.025 0.05 0.1			0.05	0.1		
Internal Counting Resolution				1:500	0,000				
Linearity/Repeatability				±	2d				
Indicator				TD5	2XW				
Column	13.8 in / 350 mm stainless steel							26.8 in / 680 mm stainless steel	
Base Construction		Stainless steel re	movable weighing <sub>l</sub>	platform with stainle	ess steel frame, silic	on-sealed IP67 stain	less steel loadcell		
Safe Overload Capacity				150% of maxi	mum capacity				
Stabilization Time				Within 1	l second				
Operating Temperature Range				14°F to 104°F	/ -10°C to 40°C				
Scale Dimensions (A x B x C x D x E x F)	10 × 10 × 2.9 × 1.8 × 23.6 × 15.1 in 12 × 12 × 3.7 × 2.4 × 23.8 × 17.4 in 254 × 254 × 74 × 45 × 600 × 383 mm 305 × 305 × 95 × 60 × 604 × 442 mm					18 × 18 × 4.3 × 2.8 × 36.8 × 24.7 in 457 × 457 × 110 × 70 × 934 × 627 mm			
Shipping Dimensions (L x W x H)	18.9 × 17.5 × 14.3 in 480 × 445 × 363 mm						39.1 × 26.8 × 9.25 in 994 × 680 × 235 mm		
Approx. Net Weight		19.8 lb / 9 kg 24.3 lb / 11 kg					41.9 lb / 19 kg		
Approx. Shipping Weight		24.3 lb / 11 kg			26.5 lb / 12 kg		46.3 lb	/ 21 kg	
Model	D52XW125WQL7	D52XW50WTX7	D52XW125WTX7	D52XW250WTX7	D52XW50WQV8	D52YW125WOV8	D52YW250WOV8	D52XW500WQV8	
model	250 lb × 0.01 lb	100 lb × 0.005 lb	250 lb × 0.01 lb	500 lb × 0.02 lb	100 lb × 0.005 lb	250 lb × 0.01 lb	500 lb × 0.02 lb	1000 lb × 0.05 lb	
${\sf Capacity} \times {\sf Readability}$	125 kg × 5 g	50 kg × 2 g	$125 \text{ kg} \times 5 \text{ g}$	$250 \text{ kg} \times 10 \text{ g}$	50 kg × 2 g	$125 \text{ kg} \times 5 \text{ g}$	$250 \text{ kg} \times 10 \text{ g}$	500 kg × 20 g	
Maximum Displayed Resolution		,	1	1:25	5,000		,		
Capacity ×	250 lb × 0.05 lb	100 lb × 0.02 lb	250 lb × 0.05 lb	500 lb × 0.1 lb	100 lb × 0.02 lb	250 lb × 0.05 lb	500 lb × 0.1 lb	1000 lb × 0.2 lb	
Certified Readability	125 kg × 50 g	50 kg × 10 g	125 kg × 50 g	250 kg × 50 g	50 kg × 10 g	125 kg × 50 g	250 kg × 50 g	500 kg × 100 g	
Min APW (g)	0.25	0.1	0.25	0.5	0.1	0.25	0.5	1	
Internal Counting Resolution				1:500	0,000				
Linearity/Repeatability					2d				
Indicator				TD5	2XW				
Column		26.8 in / 680 m	m stainless steel			38.6 in / 980 mi	m stainless steel	I	
Base Construction	Stainless steel removable weighing platform with stainless steel frame, silicon-sealed IP67 stainless steel loadcell with stainless steel frame, silicon-sealed IP67 stainless steel loadcell with stainless steel frame, silicon-sealed IP67 aluminum loadcell								
Safe Overload Capacity				150% of maxi	mum capacity				
Stabilization Time				Within 1	second				
Operating Temperature Range				14°F to 104°F	/ -10°C to 40°C				
Scale Dimensions (A x B x C x D x E x F)				$24 \times 24 \times 5.1 \times 3.5 \times 48.6 \times 30.4$ in $610 \times 610 \times 130 \times 90 \times 1234 \times 773$ mm			m		
Shipping Dimensions (L x W x H)	39.1 × 26.8 × 9.25 in 994 × 680 × 235 mm				$45.9 \times 30.7 \times 9.25$ in $1165 \times 780 \times 235$ mm				
(LX W X II)			× 235 mm			1103 X 700	7 × 233 IIIIII		
Approx. Net Weight			/ 31 kg				/ 40 kg		

99.2 lb / 45 kg

# **Defender**® **5000** Washdown Bench Scales

# **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 or 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.

# **Other Standard Features and Equipment**

User-configurable resolution up to 25,000d for general applications and up to 6,250e for legal-for-trade applications (depending on model and unit of measure), 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, non-slip adjustable rubber feet, a Wheel Kit option is also available for scales up to 300 kg.

# **Compliance**

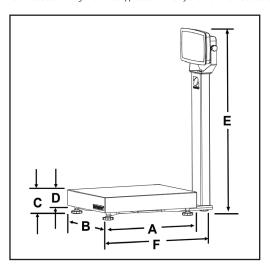
- Metrology: Measurement Canada (Indicators: NoA AM-6093, Platforms: NoA AM-6107); NTEP (Indicators: CC 18-065, Platforms: CC 18-077) Class III
- Product Safety: CAN/CSA C22.2 61010-1; UL61010-1; IEC/EN 61010-1
- Electromagnetic Compatibility: FCC Part 15 Class B; Canada ICES-003 Class B; IEC/EN 61326-1 Class B, basic environments
- · Compliance Marks: CE; CSA

# **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'	30424409

M16 Gland with Ferrite, to TD52
Micro SD Card, 8G
Analog Output Kit, TD52 <sup>3</sup> 30424403
<b>Second RS232/RS485/USB Kit, TD52</b> <sup>3</sup> 30424404
I/O with Relay (2 In/4 Out) <sup>3</sup>
WiFi/BT Dongle, OHAUS <sup>2</sup> (Requires 30424406)
<b>WiFi/BT Dongle, OHAUS</b> <sup>2</sup> (Requires 30424406)
Ethernet Kit, D52 <sup>2</sup> 30429666
Ethernet Kit, D52 <sup>2</sup>

 $<sup>^{1}</sup>$  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



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

