DEFENDER® 6000

Extreme Washdown Bench Scales

Advanced IP68/IP69K Washdown Bench Scale

The Defender 6000 Series Extreme Washdown Bench Scale is specifically designed for food, chemical and pharmaceutical applications, including production and packaging. Defender 6000 handles the most demanding applications with 316 stainless steel platform and frame, and hermetically-sealed stainless steel IP69K load cell. Defender 6000 meets metrological approvals, NSF listing, and supporting HACCP systems.

Unique Features Include:

- Defender 6000 stands up to harsh cleaning in processing and packaging environments with IP68 immersion/ IP69K washdown protection, 316 stainless steel construction and hermetically-sealed load cell.

- Durable Defender 6000 is NSF certified, supporting HACCP systems with a 316 stainless steel base and sturdy indicator providing corrosion protection in food, chemical processing, and packaging.

- Versatile scales include fast weight display and multiple software modes to meet food, chemical processing, and packaging needs.

- Defender 6000 is designed for simple connectivity in a variety of application settings.

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Defender 6000 series bench scales offer two types of indicators: a polycarbonate indicator housing for superior protection against moisture and a 316 stainless steel indicator for enhanced protection against corrosion from cleaners and additives. Equipped with a 316 stainless steel frame, platform and hermetically-sealed stainless steel load cell, the Defender 6000 series bench scales are specifically designed for wash-down, enhancing food safety and reducing downtime.

Food Safe Design: NSF listed/certified, and supports HACCP compliance. Defender 6000 series bench scales are wash-down IP68/IP69K rated with a knife proof front panel to operate reliably in harsh environments.

Featuring advanced applications including configurable Checkweighing, Percent Weighing, Filling and Dynamic Weighing or Display Hold, the Defender 6000 meets the weighing needs of practically any food or chemical processing application. Easy-to-use application modes eliminate the need for long and complicated manual calculations. GMP/GLP with time/date output allows for the traceability of results.

i-D61PW models offer an optional Infrared (IR) communication kit for connectivity without opening the housing. The indicator can store up to 1,000 weighing results which can be transferred to a PC or system for traceability.

i-D61XWE models offer multiple connectivity options, including built-in RS232 and USB host, 2nd RS232/RS485/USB Device, Analog Output, Wi-Fi/Bluetooth, Ethernet and Discrete I/O with relays. Hands-free, touchless sensor reduces contamination risk.

Application Modes

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

Checkweighing: Compare the weight of an item against target limits. Bar matrix or 3-color check light display give clear and bright indication of weight.

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

Checkcounting: Compare the count of a package against target limits. Bar matrix or 3-color check light display give clear and bright indication of count.

Percent Weighing: Display the weight of an item as a percentage of a pre-established reference weight.

Dynamic Weighing and Display Hold: Take an average of weights for an item over a period of time to account for vibration or other interference. The Display Hold feature manually or automatically holds the last stable weight of an item on the display.

Available only in the i-D61XWE models:

Filling: Fill a container to a target weight. 3-color bar matrix displays filling status. Connect with Discrete I/O option kit for an auto-filling system.

• **Library and User Management:** Up to 300 library items (stores part number, tare weights, APWs, under/over limits, set points or reference weight) can be shared within different weighing modes. Up to 100 user IDs can be stored for secure user access and traceability.

Additional Features

Dedicated target key for quick set-up of package over/under weights, speeding up line changeovers. Fully customizable templates allow for easy data printing. 150% overload capacity protection, menu password protection, key lock, selectable environmental and auto-print settings, stability indicator, overload/underload indicators, low battery indicator (i-D61PW models), auto shut-off, auto tare, non-slip adjustable rubber feet.

Optional IR RS232 kit for i-D61PW model

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Specifications

Column Mount Bench Scales

Model	i-D61XWE3K1S6	i-D61XWE6K1S6	i-D61XWE15K1R6	i-D61XWE30K1R6	i-D61XWE60K1L7	i-D61XWE150K1L7
Capacity x Default Readability	3 kg x 0.5 g	6 kg x 0.5 g	15 kg x 1 g	30 kg x 2g	60 kg x 5 g	150 kg x 10 g
Maximum Displayed Resolution	1: 6,000	1: 12,000	1: 15,000		1: 12,000	1: 15,000
Linearity/Repeatability	±2d					
Indicator	i-DT61XWE					
Column	260 mm 316 stainless steel				670 mm 316 stainless steel	
Base Construction	316 stainless steel top and bottom frame, hermetically sealed IP68/IP69K stainless steel loadcell				316 stainless steel removable weighing platform with 316 stainless steel frame, hermetically sealed IP68/IP69K stainless steel loadcell	
Safe Overload Capacity	150% of maximum capacity					
Stabilization Time	Within 1 second					
Operating Temperature Range	-10 ℃ to 40 ℃					
Scale Dimensions (A x B x C x D x E x F)	250 x 250 x 106 x - x 518 x 376 mm		300 x 300 x 106 x - x 518 x 427 mm		500 x 400 x 137 x 80 x 929 x 660 mm	
Shipping Dimensions (L x W x H)	490 x 450 x 380 mm				1000 x 690 x 250 mm	
Approx. Net Weight	10.5 kg		11.7 kg		22 kg	23.2 kg
Approx. Shipping Weight	13 kg		15 kg		25 kg	26 kg

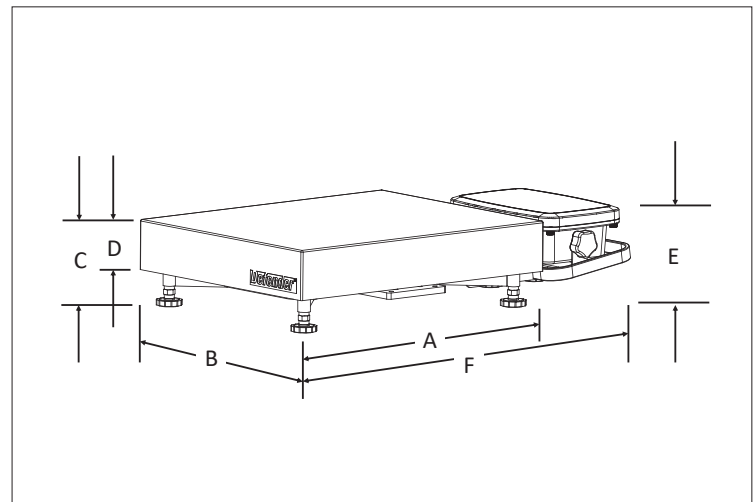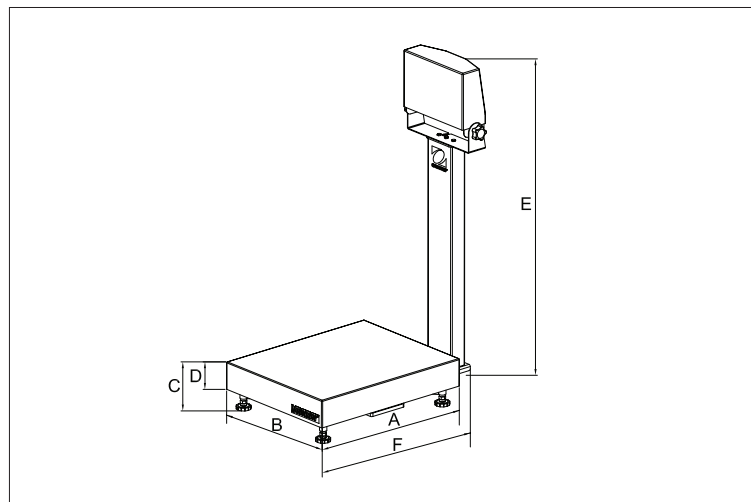| Model	i-D61PW3K1S6	i-D61PW6K1S6	i-D61PW15K1R6	i-D61PW30K1R6	i-D61PW60K1L7	i-D61PW150K1L7
Capacity x Default Readability	3 kg x 0.5 g	6 kg x 0.5 g	15 kg x 1 g	30 kg x 2g	60 kg x 5 g	150 kg x 10 g
Maximum Displayed Resolution	1: 6,000	1: 12,000	1: 15,000		1: 12,000	1: 15,000
Linearity/Repeatability	±2d					
Indicator	i-DT61PW					
Column	260 mm 316 stainless steel				670 mm 316 stainless steel	
Base Construction	316 stainless steel top and bottom frame, hermetically sealed IP68/IP69K stainless steel loadcell				316 stainless steel removable weighing platform with 316 stainless steel frame, hermetically sealed IP68/IP69K stainless steel loadcell	
Safe Overload Capacity	150% of maximum capacity					
Stabilization Time	Within 1 second					
Operating Temperature Range	-10 ℃ to 40 ℃					
Scale Dimensions (A x B x C x D x E x F)	250 x 250 x 106 x - x 504 x 376 mm		300 x 300 x 106 x - x 504 x 427 mm		500 x 400 x 137 x 80 x 915 x 660 mm	
Shipping Dimensions (L x W x H)	490 x 450 x 380 mm				1000 x 690 x 250 mm	
Approx. Net Weight	10 kg		11.2 kg		21.5 kg	22.7 kg
Approx. Shipping Weight	12 kg		14 kg		25 kg	26 kg

Front Mount Bench Scales

MODEL	i-D61PW3K1S5	i-D61PW6K1S5	i-D61PW15K1R5	i-D61PW30K1R5	i-D61PW60K1L5	i-D61PW150K1L5
Capacity xDefault Readability	3 kg x 0.5 g	6 kg x 0.5 g	15 kg x 1 g	30 kg x 2g	60 kg x 5 g	150 kg x 10 g
Maximum Displayed Resolution	1: 6,000	1: 12,000	1: 15,000		1: 12,000	1: 15,000
Linearity/Repeatability	±2d					
Indicator	i-DT61PW					
Column	316 stainless steel front-mount bracket with handle					
Base Construction	316 stainless steel top and bottom frame, hermetically sealed IP68/IP69K stainless steel loadcell				316 stainless steel removable weighing platform with 316 stainless steel frame, hermetically sealed IP68/IP69K stainless steel loadcell	
Safe Overload Capacity	150% of maximum capacity					
Stabilization Time	Within 1 second					
Operating Temperature Range	-10 ℃ to 40 ℃					
Scale Dimensions (A x B x C x D x E x F)	250 x 250 x 106 x- x 129 x 545 mm		300 x 300 x 106 x - x 129 x 596 mm		500 x 400 x 137 x 80 x 129 x 767 mm	
Shipping Dimensions (L x W x H)	490 x 450 x 380 mm				1000 x 690 x 250 mm	
Approx. Net Weight	10 kg		11.2 kg		20 kg	21.2 kg
Approx. Shipping Weight	12 kg		14 kg		23 kg	24 kg

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Indicators

MODEL	i-DT61PW	i-DT61XWE
Construction	Polycarbonate plastic housing, 316 stainless steel bracket	316 Stainless steel housing, 316 stainless steel bracket
Protection	IP68 immersion / IP69K washdown	
Weighing Units	Kilogram, Gram, Pound, Ounce, Pound: Ounce, Tonne (Metric Tonne)	Kilogram, Gram, Pound, Ounce, Pound: Ounce
Application Modes	Weighing, Checkweighing, Percent Weighing, Dynamic Weighing/Display Hold, Counting with APW optimization, Checkcounting, Filling (i-DT61XWE only)	
Display	6-digit, 7-segment LCD display with white backlight, 45 mm high digits	6-digit, 7-segment white LED, 20 mm high digits
Check Indicator	3 Color (red, green, yellow) LED Bar	3 color (red, green, orange) 8x16 dot matrix LED
Keyboard	6 function mechanical keys, raised, tactile	6 function keys + 12 numeric capacitive keypad
Auto-zero Tracking	Off, 0.5 d, 1 d or 3 d	
Zeroing Range	2% or 100% of capacity	
Interface	Optional IR Communication Kit (with magnetic front panel connection)	RS232 and USB Host included Optional Ethernet, WiFi/Bluetooth, 2nd RS232/RS485/USB Device, Analog Output, 2 In/4 Out Discrete I/O
Power	6 x D type cell battery	100-240 VAC / 50/60 Hz Universal Power Supply, hardwired or external power bank
Battery Life	Up to 1,600 hours continuous use with backlight off	Depends on the capacity of power bank used (Up to 55 hours with 20,000mAh power bank)
Calibration	Zero, Span or 3 point-Linear	

Outline Dimensions

Compliance

- **Metrology:** EN45501 (Scale: T11889; Indicator: TC11888; Load Cell: OIML R60/2000-DE1-06.02 / D09-06.20; OIML R60/2000-NL1-12.50 / TC7648)
- **Product Safety:** CAN/CSA C22.2 61010-1; UL61010-1; IEC/EN 61010-1
- **Electromagnetic Compatibility:** IEC/EN 61326-1 Class B, basic environments; FCC Part 15 Class A; Canada ICES-003 Class A
- **Food Safety:** ANSI/NSF 169, NSF/ANSI/3-A 14159-1
- **Ingress Protection:** IEC 60529 – IP68, ISO 20653 – IP69K
- **Compliance Marks:** CE, RCM
- **Other:** WEEE, RoHS

Accessories

Wi-Fi/Bluetooth Dongle i-DT61XW	30412537
Analog Output kit i-DT61XW	30424403
2nd RS232/RS485/USB Device kit i-DT61XW	30424404
LC Extension Cable, 9 meters	30424409
M16 Gland with Ferrite	30379716
Light Tower, 3 Colors, 243mm, IP65 (Requires 30097591)	30424021
Discrete I/O with Relay (2 In/4 Out) i-DT61XW	30097591
Ethernet kit i-DT61XW	30429666
External power bank holder i-DT61XW (Requires external USB power bank)	30572907
Cable RS232 i-DT61XW	80500552
Column Kit 260 mm 316 SS	30572908
Column Kit 670 mm 316 SS	30572909
Front Mounting kit 316 SS i-DT61PW	30626654
Pan 305 x 305 mm 304 SS	30427798
Pan 254 x 254 mm 304 SS	30427799
IR communication kit i-DT61PW	30572910
Wheel kit SS Defender Series	30616409
Alibi Memory i-DT61XW	80500503