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NICOL SCALES & MEASUREMENT IS AN ISO ACCREDITED CALIBRATION COMPANY THAT HAS PROVIDED CALIBRATION, REPAIR AND SALES OF ALL TYPES OF WEIGHING AND MEASUREMENT PRODUCTS SINCE 1931.



DEFENDER® 6000

Extreme Washdown Indicators



Advanced IP68/IP69K Washdown Indicator

The Defender 6000 Series Extreme Washdown Indicator is specifically designed for food, chemical and pharmaceutical applications including production, processing and packaging. Defender 6000 handles the most demanding applications with a polycarbonate or 316 stainless steel indicator equipped with bright check light bar, knife-proof front panel and EasyConnect™.

Unique Features:

- Defender 6000 indicator, constructed of polycarbonate or 316 stainless steel, stands up to harsh cleaning in processing and packaging environments with IP68 immersion/IP69K washdown protection.
- Large, bright display offers clear results for fast processing. Color bar offers detailed package weight checking.
- i-DT61PW operates for up to 1,600 hours on one set of batteries for months of use. Battery-powered design eliminates the need for a main connection for increased flexibility.
- With knife-proof numeric touch keypad, i-DT61XWE indicator is suitable for harsh processing environments.

DEFENDER® 6000 *Extreme Washdown Indicators*

Defender 6000 series 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. Defender 6000 series indicators are IP68 and IP69K rated for wash-down and offer a reliable option for harsh environmental conditions, enhancing food safety and reducing downtime.

Results can be read easily on the 45mm digit height, backlight LCD display or bright, white LED display. 3-color check light bar of i-DT61PW can be used for quick checking of package weights for fast go/no-go alert. Configurable 3-color bar matrix of i-DT61XWE can be used for check or filling application to ensure compliance.



i-DT61PW

- Up to 1,600 hours of continuous operation with backlight off, one set of batteries allows months of use.
- Battery-powered design eliminates the need for a mains connection.
- Tool-free design allows for easy battery replacement with no downtime waiting for charging.
- 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-DT61XWE

- 3mm thickness polycarbonate touch keypad, dedicated target and numeric keys ensures quick use and operation in harsh environments.
- Multiple connectivity capabilities include built-in RS232 and USB host.
- Optional 2nd RS232/RS485/USB Device, Analog Output, WiFi/Bluetooth, Ethernet and Discrete I/O with relay.
- Touchless sensor allows for hands-free operation, reducing contamination risk.
- Optional external battery housing kit, allowing indicator to be powered with power bank in wet harsh environment.



Optional External Power Bank Holder for i-D61XWE Models

DEFENDER® 6000 *Extreme Washdown Indicators*

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-DT61XW:



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**

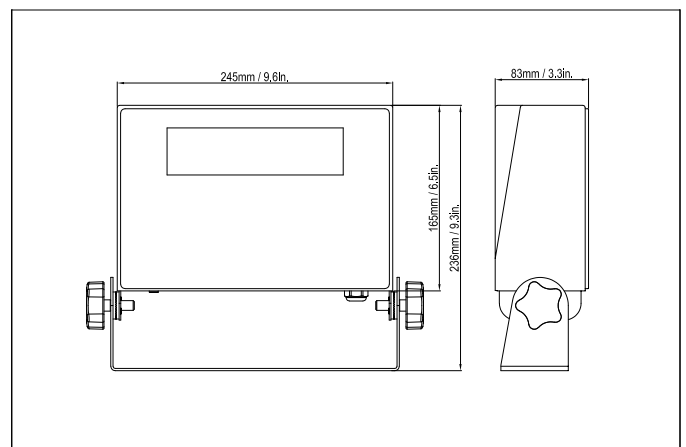
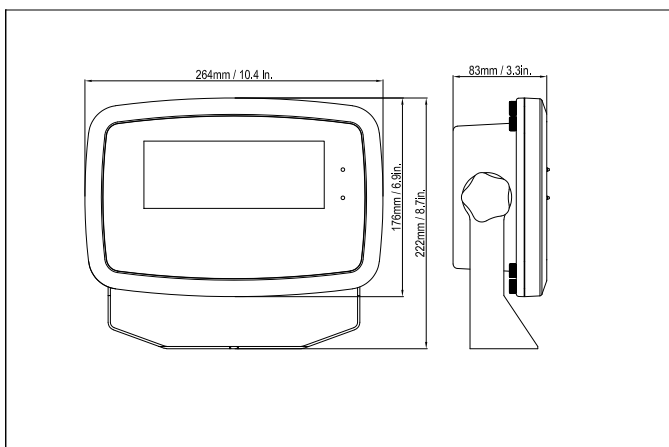
Up to 300 library items (stores part number, tare weights, APWs, under/over limits, set points or reference weight) can be shared within different weighing modes. 100 user IDs can be stored for secure user access and traceability.

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. When connecting to OHAUS EasyConnect™ bases, allows instant connection and use of the scale without additional configuration.

Menu password protection, key lock, selectable environmental and auto-print settings, stability indicator, overload/underload indicators, low battery indicator (i-DT61PW), auto shut-off, auto tare.

Outline Dimensions



DEFENDER® 6000 *Extreme Washdown 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	
A/D Conversion Rate	80 Hz	
Capacity Selections	Up to 99,999 g/kg/lb/t	999,999 kg/lb with decimal located to five places
Maximum Displayed Resolution	1:75,000	
Maximum Approved Resolution	1:10,000 (NTEP: III, IIIL, Measurement Canada: III, IIIHD) @ 2 mV/V	1:10,000 (NTEP: III, IIIL, Measurement Canada: III, IIIHD) @ 1.6 mV/V
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 / 1.8 in high digits	6-digit, 7-segment white LED, 20 mm / 0.8 in 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	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	
Calibration	Zero, Span or 3 point-Linear	
Span Calibration	1 lb or 1 kg to capacity	
Internal Resolution	1,000,000 counts per mV/V	1,137,000 counts per mV/V
Digital Filtering/Type	Averaging	
Load Cell Excitation Voltage	3.3VDC	5VDC
Load Cell Drive	Up to 4 x 350 ohm load cells	Up to 8 x 350 ohm load cells
Load Cell Input Sensitivity	Up to 3 mV/V	
Stabilization Time	Within 1.5 seconds	Within 1 second
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 1600 hours continuous use with backlight off	Depends on the capacity of power bank used (Up to 55 hours with 20000mAh power bank)
Interface	Optional IR Communication Kit (with magnetic front panel connection)	RS232 and USB Host included Optional Ethernet, WiFi/Bluetooth, 2 nd RS232/RS485/USB Device, Analog Output, 2 In/4 Out Discrete I/O
Shipping Dimensions	11.8 x 10.4 x 5.3 in / 300 x 265 x 135 mm	
Product Dimensions (With Bracket)	10.4 x 8.9 x 3.3 in / 265 x 225 x 85 mm	11.4 x 9.3 x 3.1 in / 290 x 235 x 80 mm
Approx. Net Weight	6.0 lb / 2.7 kg	7.0 lb / 3.2 kg
Approx. Shipping Weight	8.4 lb / 3.8 kg	7.7 lb / 3.5 kg
Operating Temperature Range	14 °F to 104 °F / -10 °C to 40 °C	

Compliance

- **Metrology:** NTEP: CC 20-043 Class III, IIIL, Measurement Canada: AM-6159 Class III, IIIHD
- **Product Safety:** CAN/CSA C22.2 61010-1; UL61010-1; IEC/EN 61010-1
- **Electromagnetic Compatibility:** FCC Part 15 Class A; Canada ICES-003 Class A; IEC/EN 61326-1 Class B, basic environments
- **Food Safety:** ANSI/NSF 169
- **Ingress Protection:** IEC 60529 – IP68, ISO 20653 – IP69K
- **Compliance Marks:** CSA, CE
- **Other:** WEEE, RoHS

Accessories

Wi-Fi/Bluetooth Dongle i-DT61XW	30412537
Analog Output kit i-DT61XW	30424403
2 nd 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
IR communication kit i-DT61PW	30572910
Alibi Memory i-DT61XW	80500503

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

