Multifunctional Indicator for Standard Industrial Applications

The OHAUS next generation Defender 5000 Series multifunctional indicator is ideal for use in conjunction with bench and floor scales 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 Series is designed to handle demanding industrial and commercial applications.

Standard Features:

- **Indicator Guides The User with On-Screen Prompts**
  See results clearly on the large backlit display. The alphanumeric keypad and function keys allow for a simplified user experience. On-screen prompts and soft keys will guide you through the operation.

- **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 RS232/RS485/USB device, Ethernet and Bluetooth/WiFi, Analog Output and Discrete I/O with relays.

- **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 GMP/GLP capability with time/date for result traceability.

- **Install Easily with the 'EasyConnect' Feature**
  When connecting to Defender 5000 bases, the EasyConnect™ technology allows instant connection and use of the scale without extra configuration.

Ingeniously Practical

Defender® 5000 *Standard Indicators*

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.

Multiple Connectivity Options

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

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

Simple Operation

Featuring most common applications including Percent Weighing, Parts Counting with APW optimization, Checkweighing or Checkcounting 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.

Easy Installation

The latest technology EasyConnectTM, allows the Defender 5000 indicator and base to be freely connected without needing extra configuration. Plug and play - save your time and money for installation and adjustment.
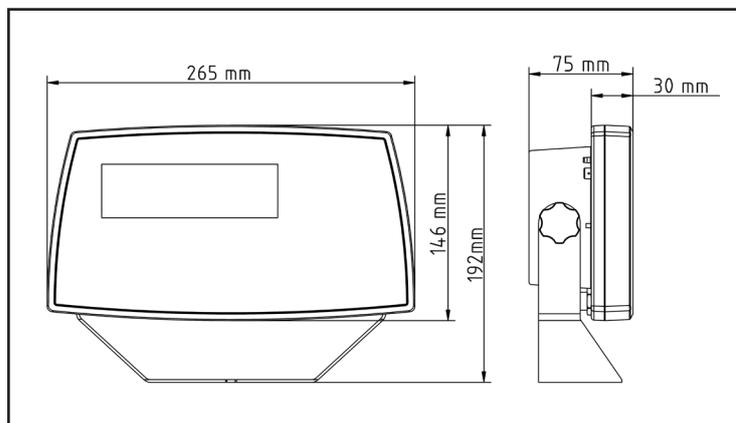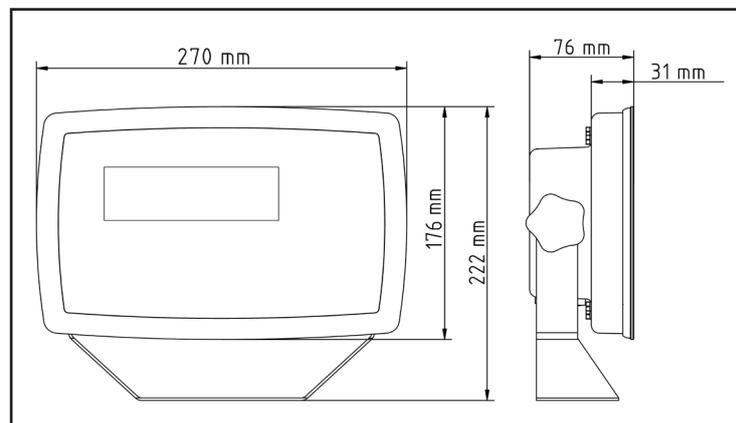
Defender® 5000 *Standard Indicators*

Indicator Specifications

	TD52P	TD52XW
Construction	ABS plastic, powder-coated steel bracket	304 stainless steel with sand blasted surface treatment, stainless steel bracket
Protection	N/A	IP68
A/D Conversion Rate	80 Hz	
Capacity Selections	999,999 with decimal located to five places	
Maximum Display Resolution	1:75,000	
Maximum Approved Resolution	1:10,000 (EC, OIML & NTEP/Measurement Canada) Class III or 2 × 3000e @ 0.8 µV/e (EC, OIML)	
Weighing Units	Kilogram, Gram, Pound, Ounce, Pound: Ounce, Tonne (Metric Tonne), Ton (Short Ton), Custom unit	
Application Modes	Basic 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	
Calibration	Zero, Span or 3-point Linear	
Span Calibration	1 kg or 1 lb to capacity	
Internal Resolution	1,137,000 counts per mV/V	
Digital Filtering/Type	Averaging	
Load Cell Excitation Voltage	5VDC	
Load Cell Drive	Up to 8 x 350 ohm load cells	
Load Cell Input Sensitivity	Up to 3 mV/V	
Stabilization Time	Within 2 seconds	
Power	100-240 VAC / 50/60 Hz Universal Power Supply, Hardwired (TD52XW) or Line Cord (TD52P), Rechargeable Lithium battery (optional)	
Battery Life	20 hours of continuous use	
Interface	Standard RS232, MicroSD Card (included) Optional Ethernet, WiFi/Bluetooth, 2nd RS232/RS485/USB, Analog Output, 2 In/4 Out Digital I/O	
Shipping Dimensions	300 x 265 x 135 mm	
Approx. Net Weight	1.5 kg	2 kg
Approx. Shipping Weight	2 kg	2.5 kg
Operating Temperature Range	-10℃ to 40℃	

TD52P

TD52XW

265 mm 75 mm 30 mm 146 mm 192mm

270 mm 76 mm 31 mm 176 mm 222 mm

Defender® 5000 Standard Indicators

Application Modes

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

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

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.

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

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.

Other Standard Features and Equipment

Checkweighing symbols with selectable operation and audible signal settings, menu lock switch, multiple operating languages, selectable environmental and auto-print settings, stability indicator, overload/underload indicators, selectable adjust contrast settings, auto-dim, auto-off, auto tare, screensaver.

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 (Certificate R76/2006-A-NL1-18.13)

• **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

WiFi/BT Dongle, OHAUS (Requires 30424406)[2] 30412537

Analog Output Kit, TD52[3] 30424403

2nd RS232/RS485/USB, TD52[3] 30424404

Battery Kit, Li-ion, TD52 30424405

USB Host for Dongle, TD52 .30424406

Light Tower, 3 Colors, 243mm, IP65 (Requires 30097591) 30424021

In-use Cover Set, TD52P 30424022

In-use Cover Set, TD52XW 30424023

In-use Cover Set (10), TD52P 30469948

In-use Cover Set (10), TD52XW 30469949

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

I/O with Relay (2 In/4 Out)[3] 30097591

Ethernet Kit, D52[2] 30429666

Printer SF40A 30064202

[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