



Defender™ 3000 Series

Economy line of Indicators, Bases and Bench Scales



Designed with affordability in mind, but with no compromise on quality!

The OHAUS Defender™ 3000 Series economy line of dry or wet-use indicators, bases and bench scales is ideal for general weighing and simple counting applications in production, packaging, warehouse, inventory, shipping and receiving areas. Used in both bench and floor scale configurations, they feature a simple yet rugged tubular-frame base design and indicators with positive feedback keys, high-contrast backlit LCD display, built-in rechargeable battery operation and flexible mounting capabilities. The OHAUS Defender 3000 Series is the solution to your weighing applications that require dependability within an affordable budget.

Standard Features Include:

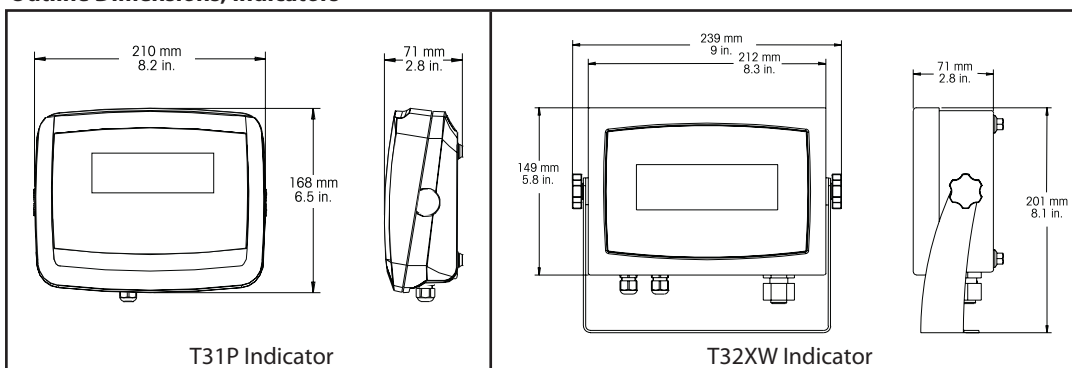
- Two rugged indicator models:
 - T31P indicator features a high-impact ABS housing that is reversible for either wall, column or table-top mounting
- Two base versions in three sizes:
 - 304 stainless steel pan with painted carbon steel frame and aluminum IP67 load cell
- Four scale capacity models: 30kg, 60kg, 150kg, 300kg, 1Ton, 2Ton, 3Ton & 5Ton.
- Scales with maximum displayed resolutions 1:6000-7500d, Type-approved 1:3000e
- Built-in RS232 bidirectional interface, for printing and data communications
- Internal rechargeable sealed lead-acid battery included

Defender™ 3000 Indicators, Bases and

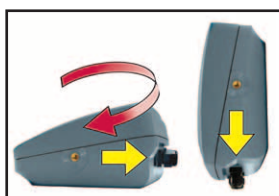
Indicator Specifications

Models:	T31P
Construction	ABS plastic with internal reinforcing ribs Reversible front-rear cover with 4 key-hole mounts in rear housing
Housing Dimensions (W x D x H)	210 x 71 x 168 mm
Full Scale Capacity Range	5 to 20,000 kg / lb
Max Displayed / Approval Resolution	1:20,000d / 1:6000e
Weighing Units	kg, lb, g, oz, lb:oz
Extra Functions/Modes	Parts Counting
Minimum Average Piece Weight	1d
Sample Size	5, 10, 20, 50, 100, 200 (user selectable)
Weight Display	25mm/1" High, 6-digit, 7-segment LCD with high-contrast white LED backlight
Keyboard	4 function mechanical switches, raised, tactile
Load Cell Drive	up to 4 x 350 ohm Load Cells
Load Cell Excitation Voltage	5V DC
Load Cell Input Sensitivity	up to 3 mV/V (min 1 µV/d)
Stabilization Time	within 2 seconds
Auto-Zero Tracking	Off, 0.5, 1 or 3 divisions
Key Zeroing Range	2% or 100% of capacity
Span Calibration	5 kg/lb to 100% of capacity
Interface	Bi-directional RS232C
Power	9 VDC, 0.5A, AC adapter
Battery	Internal rechargeable sealed lead acid battery, 100-hour typical operation with full charge
Operating Temperature Range	-10°C to 40°C
Humidity Range	80% for temperatures up to 31°C, decreasing linearly to 50% at 40°C, non-condensing
Net Weight	1.6kg
Shipping Weight	2.6kg
Shipping Dimensions (W x D x H)	272 x 235 x 175 mm
Other Features	Environmental filtering, geographical gravity adjustment

Outline Dimensions, Indicators



T31P Indicator shown with optional wall mount bracket



Reversible cover for cable exit above or below the housing, T31P



Structural ribs minimize flexing and gives strength to the housing, T31P



Integrated key-hole mounts for wall mounting without brackets, T31P