

# DIY1 | Dynamometer



## Product Description



The DIY1 Dynamometer is designed to meet your force measurement needs with the highest precision. It is a load cell with an integrated display, operating in the tension direction. This device, offering high durability and performance, is manufactured from a special high-strength aluminum alloy preferred in the aerospace industry. Its body is protected by hard anodized coating, providing excellent resistance to harsh environmental conditions.

DIY1 offers great ease of use with wired models that feature analog and digital output options, as well as wireless communication versions with an integrated display and external handheld terminal. The wireless model can be easily controlled via the handheld terminal. With its robust structure and 0.1% accuracy rate, it delivers precise measurement capabilities and provides up to 80 hours of uninterrupted use with its rechargeable internal battery.

Widely used units such as kilograms (kg), tons (t), pounds (lb), Newtons (N), and kilonewtons (kN) are available, meeting various measurement needs. With the ability to monitor up to 16 DIY1 dynamometers individually or their total weight through a single handheld terminal, it is available in capacities ranging from 3 tons to 500 tons.

## Application Areas



- Strain Tests
- Tensile Tests
- Force Tests
- Mining Transportation
- Logistics
- Shipyards
- Construction
- Ports



**LPTSENS**  
Load Cell and Industrial Weighing Systems

## Loadcell Technical Specifications

<b>Total Error</b>	±0.1 %FS	<b>Operating Temperature Range</b>	-30 ~ +70 °C
<b>Output Gain (FS)</b>	1.2 mV/V (4–20mA, RS485) Opt.	<b>Recommended Excitation Voltage</b>	10 VDC
<b>Zero Balance</b>	± 1 %FS	<b>Maximum Excitation Voltage (Umax)</b>	15 VDC
<b>Input Resistance</b>	750 Ω ± 20 Ω	<b>Overload Capacity</b>	150 %FS
<b>Output Resistance</b>	702 Ω ± 5 Ω	<b>Breaking Load</b>	300 %FS
<b>Isolation Resistance</b>	≤ 5000 MΩ (100VDC)	<b>Protection Class (EN60529)</b>	IP 65
<b>Compensated Operating Temperature</b>	-10 ~ +40 °C (Optional)	<b>Load Cell Material</b>	Aluminum

## HY185 Wireless Indicator Technical Specifications

<b>Display</b>	128x64 Dot matrix LCD	<b>Wireless Range</b>	200 Meters (Open Area)
<b>Status Indicators</b>	Balance, Zero, Peak Hold, Unit, Battery, Signal, Date, Time	<b>Power Source</b>	Battery 7.4V/2800mA – 8V/1A Charger Adapter
<b>Keypad</b>	13 Function Membrane Button	<b>Operating Temperature</b>	-10°C ~ 45°C, 95%RH
<b>Filtering</b>	5-Step Digital	<b>Communication</b>	Rs232 (Baudrate 9600)
<b>Communication</b>	Wireless interface, 430MHZ–470MHZ		

# Capacity



Capacity	A	B	C	D	R	Capacity	A	B	C	D	R
3 Ton	240	102	160	47	25.4	120 Ton	550	235	300	120	127
6,5 Ton	250	102	170	47	29	150 Ton	620	280	320	130	127
12,5 Ton	300	118	192	47	41	200 Ton	730	340	370	150	139.5
25 Ton	340	135	216	60	63.4	250 Ton	800	360	400	155	164
35 Ton	386	140	230	75	73	300 Ton	850	425	410	160	165
55 Ton	440	180	240	75	92	400 Ton	1000	425	500	200	187.4
75 Ton	480	200	260	100	100	500 Ton	1000	520	480	230	225
100 Ton	550	235	300	120	114.3						

