

Wireless ELF™

Freedom in Force Sensing



Wireless *ELF* is a user-friendly force measurement system, enabling your laptop or PC to quickly capture and store force data from an event **up to 200 feet away**. This revolutionary system offers greater flexibility for countless applications, including sports equipment testing, safety assessment, medical procedures, industrial R&D, and much more. This system combines *FlexiForce* sensors with a USB hub, Wireless transmitter, and Windows-compatible software*, turning your PC or laptop into a force measurement instrument. **Key software features include:**

- Real-time data capture
- Movie recording & saving
- ASCII output to data analysis software
- Simple and storable calibration
- Adjustable sensitivity
- Internal triggering
- Capability to tare a load

*Compatible with Windows 2000 and XP



System Components & Physical Properties

- One (1) USB-powered Hub*
- One (1) Battery-operated Transmitter
- Three (3) WB201 sensors (one in each of the available force ranges)
- One (1) Software Installation CD

*One (1) Hub and one (1) Transmitter are included with the system. Each system can support one(1) additional hub (two (2) hubs maximum), and each hub can support one (1) additional transmitter (two (2) maximum), for a total of two (2) hubs and four (4) transmitters. If you want to use more hubs and transmitters, please contact us directly.



Wireless transmitter and sensor

WB201 Sensor

Thickness	0.008" (0.208 mm)
Length	7.75" (197 mm) End-to-end
Width	0.55" (14 mm)
Sensing Area	0.375" diameter (9.53 mm)
Connector	3-pin male connection to wireless transmitter
Substrate	Polyester (ex: Mylar)

Hub & Transmitter

Thickness	0.75"	(19.05 mm)
Length	3.125"	(79.38 mm)
Width	2.25"	(57.15 mm)
Weight (Hub)	1.9 oz	(53.8 g)
Weight (Transmitter)	3.4 oz	(96.4 g)

Recommended Maximum Force (Variable gain feature of the Wireless ELF System enables adjustable force ranges)

Sensor	High Gain	Low Gain
	Maximum Force	Maximum Force
W-B201-L	0 - 1 lb (4.4 N)	0 - 25 lb (111 N)
W-B201-M	0 - 25 lb (111 N)	0 - 150 lb (667 N)
W-B201-H	0 - 150 lb (667 N)	0 - 1000 lb (4448 N)

Typical Performance

Linearity (Error)	< ±5%
Repeatability	< ±2.5% of Full Scale
Hysteresis	< 4.5 % of Full Scale
Drift	< 5% per Logarithmic Time Scale
Sampling Rate	200 Hz
Communication Range	≤200 feet
Battery Life	Approximately 24 hours
Operating Temperature	15°F - 140°F (-9°C - 60°C)*

Evaluation Conditions

- Line drawn from 0 to 50% load
- Conditioned sensor, 80% of full force applied
- Conditioned sensor, 80% of full force applied
- Constant load of 25 lb (111 N)
- Up to two sensors
- Continuous use
- Force reading change per degree of temperature change=±0.2%/°F(0.36%/°C)
- For loads less than 10 lb, the operating temperature can be increased to 165°F



Actual size of W-B201 sensor