



The Wireless ELF 2 System (WELF2) is a user-friendly, cost-effective load measurement system. This system combines three FlexiForce WB201 sensors, a battery-operated WiFi transmitter (certified 802.11b radio- 802.11b/g/n compatible), and Windows-compatible software*, turning your PC or laptop into a force measurement instrument. The WELF2 system has sampling rates up to 200 Hz and is available in a high-speed version with sampling rates up to 6,000 Hz. The system has multi-handle capabilities and can support up to 16 handles. The WiFi connection setup has access point (unsecured router) network capability. Additional handles can be purchased for multi-handle use.

* Compatible with Windows 7, 8.1, and 10

Features

- Real-time data capture
- ASCII output to data analysis software
- Simple and storable calibration
- Adjustable sensitivity
- Displays in strip chart, column graph, or digital readout
- Movie recording & saving
- Multi-point calibration
- Capability to tare a load
- Internal load triggering
- Includes 3 AAA Batteries with battery life up to 5 hours
- Optional power supply is available for purchase
- Includes 3 FlexiForce WB201 sensors
- WELF 2 is compatible with all FlexiForce sensor models with 2 and 3 male pin terminations, except A101
- Additional transmitters available for purchase (an unsecured router is required for multi-handle use)
- Wireless router (unencrypted) included

WELF 2 System	Sampling Rate	Range	Max # of Transmitters	Includes
Standard	Up to 200 Hz	1 Transmitter - 65 meters 1+ Trans. - 50 Meters	Up to 16	<ul style="list-style-type: none"> • (1) Handle • (3) WB201 Sensors • ELF Software • Wireless Router
High-Speed	Up to 6,000 Hz	1 Transmitter - 65 meters 1+ Trans. - 25 Meters	Up to 16	<ul style="list-style-type: none"> • (1) Handle • (3) WB201 Sensors • High-Speed ELF Software • Wireless Router

Physical WiFi Transmitter Properties

Weight	95 g (3.3 oz.)
Length	95.3 mm (3.7 in.)
Width	46.4 mm (1.83 in.)
Height	26.7 mm (1.05 in.)



WB201 Sensor

Physical Properties of WB201 Sensor

Thickness	0.208 mm (0.008 in.)
Length	197 mm (7.75 in.) End-to-end
Width	14 mm (0.55 in.)
Sensing Area	9.53 mm (0.375 in.) diameter

WELF 2 is compatible with FlexiForce sensor models A201, A301, A401, and A502



Recommended Maximum Force

(variable gain feature of the WELF2 System enables adjustable force ranges)

Sensor	High Gain Maximum Force	Low Gain Maximum Force
WB201-L	4.4 N (0 - 1 lb)	111 N (0 - 25 lb)
WB201-M	111 N (0 - 25 lb)	667 N (0 - 150 lb)
WB201-H	667 N (0 - 150 lb)	4448 N (0 - 1,000 lb)

	Typical Performance	Evaluation Conditions
Linearity (Error)	< ±3% of full scale	Line drawn from 0 to 50% load
Repeatability	< ±2.5%	Conditioned sensor, 80% of full force applied
Hysteresis	< 4.5% of full scale	Conditioned sensor, 80% of full force applied
Drift	< 5% per logarithmic time scale	Constant load of 111 N (25 lb)
Operating Temperature	-40°C - 60°C (-40°F - 140°F)	Convection and conduction heat sources

Force reading change per degree of temperature change = 0.36%/°C (±0.2%/°F)



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Sensor Datasheet
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