

Force Gauge Comparison Chart

REV 1



Series 7
Professional



Series 5
Advanced



Series 4
Performance



Series 3
Basic



Series 2
Economical

	Series 7 Professional	Series 5 Advanced	Series 4 Performance	Series 3 Basic	Series 2 Economical
Accuracy (% of full scale)	± 0.1%	± 0.1%	± 0.2%	± 0.3%	± 0.5%
Sampling rate	14,000 Hz	7,000 Hz	3,000 Hz	2,000 Hz	500 Hz
Resolution	1/5,000	1/5,000	1/2,000	1/1,000	1/1,000
Data outputs	USB, RS-232, Mitutoyo, analog	USB, RS-232, Mitutoyo, analog	USB, RS-232, Mitutoyo, analog	USB	?
ASCII command set for external communication	✓	✓	"?" command only (for continuous or individual data point output)	"?" command only (for continuous or individual data point output)	?
Data capture & storage capabilities	Continuous data capture at up to 14,000 Hz*, with buffer, or individually saved readings, 5,000 readings total	1,000 individually saved readings	50 individually saved readings	?	?
Statistical calculations and output to PC	✓	✓	✓	?	?
Break detection*	✓	?	?	?	?
1st / 2nd peak detection*	✓	?	??	?	?
Programmable footswitch command string	✓	?	?	?	?
Averaging mode	✓*	✓	?	?	?
External trigger mode	✓**	✓	?	?	?
Set points (for pass / fail indication)	Yes, with high / low indicators, markers, with high / low indicators, markers on analog bar graph, and outputs	Yes, with high / low indicators, markers, with high / low indicators, markers on analog bar graph, and outputs	Yes, with high / low indicators, markers, with high / low indicators, markers on analog bar graph, and outputs	Yes, with high / low indicators, markers on analog bar graph, and outputs	?
Password Protection, for keys and calibration	✓	✓	?	?	?
Overload outputs, w/ pins for tension and compression	✓	✓	✓	?	?
Units of measurement	7, including coefficient of friction unit and user-defined unit	5	5	3	3
Peaks and analog load bar always shown on display	✓	✓	✓	✓	?
Included items	Carrying case with complete set of attachments, AC adapter, rechargeable battery, and calibration cert with data	Carrying case with complete set of attachments, AC adapter, rechargeable battery, and calibration cert with data	Carrying case with complete set of attachments, AC adapter, rechargeable battery, and calibration cert with data	Same as Series 7/5/4 with certificate of calibration without data	Non-rechargeable 9V battery

* With configurable automatic data output, data storage, and zero function upon event completion. Can also stop travel of the ESM301/ESM301L test stand.

** Can stop travel of the ESM301/ESM301L test stand upon event completion.