## Force/Torque Indicator Comparison Chart

|   | Model 71 Professional  | Model 51 Advanced   | Model 31 Basic  |
|---|--|---|---|
| Accuracy (% of full scale + sensor)                             | ±0.1%  | ±0.1%   | ±0.2%   |
| Sampling rate   | 14,000 Hz  | 7,000 Hz  | 2,000 Hz  |
| Max data output rate  | 500 Hz   | 500 Hz  | 50 Hz   |
| Resolution  | up to 1/2,000, depending on sensor   | up to 1/2,000, depending on sensor  | 1/1,000   |
| Compability with Mark-10 sensors via<br>Plug & Test® Technology | ✓  | ✓   | ✓   |
| Data outputs  | 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)                   |
| 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   | ×   |
| Statistical calculations and output to PC                       | ✓  | ✓   | ×   |
| Break detection*  | ✓  | ×   | ×   |
| 1st / 2nd peak detection*                                       | ✓  | ×   | ×   |
| Programmable footswitch command string                          | ✓  | ×   | ×   |
| Averaging mode  | <b>√</b> ∗   | ✓   | ×   |
| External trigger mode   | <b>√</b> **  | ✓   | ×   |
| Set points<br>(for pass / fail indication)                      | Yes, with high / low indicators, markers on analog bar graph, and outputs                                      | Yes, with high / low indicators, markers on analog bar graph, and outputs           | Yes with high/low indicators, markers on analog bar graph, no output                |
| Password Protection, for keys and calibration                   | ✓  | ✓   | ×   |
| Sensor password protection                                      | ✓  | ✓   | ✓   |
| Overload outputs, w/separate pins for each direction            | ✓  | ✓   | ×   |
| Units of measurement  | 7, including coefficient of friction unit and user-defined unit  | 5   | 3   |
| Peaks and analog load bar always<br>shown on display            | ✓  | ✓   | ✓   |
| Included items  | Carrying case with AC adapter, rechargeable battery, and certificate of conformance                            | Carrying case with AC adapter, rechargeable battery, and certificate of conformance | Carrying case with AC adapter, rechargeable battery, and certificate of conformance |

<sup>\*</sup> With configurable automatic data output, data storage, and zero function upon event completion. Can also stop travel of a motorized test stand.

<sup>\*\*</sup> Can stop travel of a motorized test stand upon event completion.



