The Series BG Digital Force Gauge is an advanced force measurement instrument, with sophisticated measurement capabilities, data outputs, computer control capabilities, and a long list of features and configurable settings.

### Specifications

- **Accuracy:** ±0.2% of full scale ±1 digit
- **Power:** AC or rechargeable battery with Intelligent Power Management System (IPM), a 3-step system that warns the user via a "LO BAT" indicator and then powers off the gauge.
- **Battery life:** 8-10 hours of continuous use
- **Selectable units of measurement:** lbF, N, kg/g (depending on model)
- **Outputs:**
  - RS-232: Fully configurable up to 9600 baud. Includes Gauge Control Language (GCL) for full computer control of all functions.
  - Mitutoyo (Digimatic): Serial BCD suitable for all Mitutoyo SPC-compatible devices
  - Analog: ±1 VCD, ±0.25% of full scale at capacity, + for compression, - for tension.
  - General purpose I/O: Three open collector outputs and one input (utilizing Mitutoyo lines)
  - Set points: Three open collector lines (utilizing Mitutoyo lines)
- **Configurable settings:** Analog filter, digital filters, RS-232, outputs selection (other than RS-232), automatic output (RS-232), automatic shutoff, initial (default), averaging mode, calibration
- **Load cell deflection (at full scale):** See Ordering Information
- **Safe overload:** 150% of full scale (display shows "----" at 110% and above)
- **Weight (gauge only):**
  - BG012 - BG200: 0.95 lb [0.4 kg]
  - BG500: 1.12 lb [0.5 kg]
- **Environmental requirements:** 40° F - 100°F [5°C - 45°C], <96% humidity (non-condensating)
- **Thermal effects:**
  - Zero: 0.03% of full scale/°C
  - Span: 0.01% of full scale/°C
- **Housing construction:** Aluminum
- **Included accessories:** Chisel, cone, V-groove, hook, flat, extension
- **Warranty:** 3 years (see individual statement for further details)

### Optional Equipment

- **Output cables:** Various data output cables are available
- **Hi / lo limits indicator:** Set limit conditions for a test - the indicator will display red lights for high and low limits, and a green light to indicate passing.
- **Overload protection module:** Protects the force gauge against overloads during motorized tests. Adjustable from 10% to 150% of gauge's full capacity. For use with motorized test stands.
- **Set point cable:** Stops test stand travel at programmable high and low set points for tension and compression forces. For use with motorized test stands.

### Ordering Information

For 220V operation, add suffix E to model number. Example: BG10E

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Capacity x Resolution</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG012</td>
<td>0.12 x 0.00005 lbF</td>
<td>0.005 [0.13]</td>
</tr>
<tr>
<td>BG025</td>
<td>0.25 x 0.001 lbF</td>
<td>0.010 [0.25]</td>
</tr>
<tr>
<td>BG05</td>
<td>0.5 x 0.002 lbF</td>
<td>0.015 [0.35]</td>
</tr>
<tr>
<td>BG2</td>
<td>2 x 0.01 lbF</td>
<td>0.020 [0.50]</td>
</tr>
<tr>
<td>BG5</td>
<td>5 x 0.02 lbF</td>
<td>0.050 [1.00]</td>
</tr>
<tr>
<td>BG10</td>
<td>10 x 0.05 lbF</td>
<td>0.100 [2.00]</td>
</tr>
<tr>
<td>BG20</td>
<td>20 x 0.1 lbF</td>
<td>0.200 [4.00]</td>
</tr>
<tr>
<td>BG50</td>
<td>50 x 0.2 lbF</td>
<td>0.500 [10.0]</td>
</tr>
<tr>
<td>BG100</td>
<td>100 x 0.5 lbF</td>
<td>1.000 [20.0]</td>
</tr>
<tr>
<td>BG200</td>
<td>200 x 1 lbF</td>
<td>2.000 [40.0]</td>
</tr>
<tr>
<td>BG500</td>
<td>500 x 0.2 lbF</td>
<td>5.000 [100.0]</td>
</tr>
</tbody>
</table>

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### Features

- **Data outputs:** RS-232, Mitutoyo (Digimatic), and analog outputs. Automatic timed output (RS-232) included.
- **Set points:** Programmable high and low force set points for triggering external devices (ex. motorized test stand, alarm, etc).
- **Data averaging:** Calculates average force over a specified time (programmable)
- **External trigger:** Useful for contact or switch activation force testing and data capture
- **Reversible housing:** Housing can be reversed for handheld or test stand use

### Dimensions

- **Dimensions in [mm]:**
  - ØA: 0.200 [5.0] 0.375 [9.5]
  - B: 0.19 [4.8] 0.44 [11.2]
  - C: 0.35 [8.9] 0.68 [17.3]
  - Thread: #10-32 5/16-18

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Specifications subject to change without prior notice