Unique, self-contained design replaces large, cumbersome systems.

Laser gauging sensors are typically large, two-piece systems, and are difficult to use. The new Banner L-GAGE has changed all that with a completely self-contained, patent-pending design measuring only 55 mm X 82 mm X 20 mm (2.2" X 3.2" X 0.8"). By eliminating the need for a separate controller, the one-piece L-GAGE is easier to wire, decreases setup time and conserves valuable production space, with the added bonus of superior performance.

Ultra-precise & accurate, with both analog & discrete outputs.

Advanced digital signal processing algorithms make the L-GAGE Class 2 modulated visible laser gauging sensor a powerhouse of performance for a wide range of measurement applications. It features an outstanding maximum resolution of 3 µm (0.0001”). It's ultra-narrow effective beam resolves precision distance, height or thickness measurement and gauging applications, including robot arm calibration, wafer profiling, diameter or thickness measurement, and assembly dimension inspection, to name only a few.

A price point as sharp as its laser emitter.

Now you can upgrade to laser technology for the same cost as a contacting sensor. L-GAGE sensors are the first in their category to break the $1,000 price barrier, providing an economical and highly accurate solution at a much lower cost. Previously cost-prohibitive applications can now be solved with ease. And because L-GAGE sensors do not contact the parts they measure, they can be used with moving processes, hot parts and sticky parts. They also include measuring features that are unavailable on contacting probes, giving the L-GAGE sensors a distinct advantage in performance as well as price.

Infinitely more flexible.

L-GAGE sensors are vastly more flexible and easier to program than currently-available gauging sensors. Why buy an inflexible fixed-range laser sensor when the more-advanced L-GAGE lets you pick the exact range you need with the push of a button? And you get both discrete (switched) and analog outputs in the same unit, each independently programmable. It’s a better solution for all your applications. For additional flexibility, analog units are available with either 4 to 20 mA or 0 to 10V outputs.
Define your own custom sensing window by simply pushing a button.
Unlike older, inflexible, fixed-range technology, Banner’s patent-pending TEACH-mode programming allows you to set your own custom-sized sensing windows, and place them anywhere within either a 45 mm to 60 mm (1.8” to 2.4”) or 75 mm to 125 mm (2.9” to 4.9”) range using a single push button. One L-GAGE sensor can be easily programmed to provide an analog output, discrete output, or both simultaneously with independently controlled sensing window limits.

Remote programming.
For maximum convenience and easier access for programming hard-to-reach sensors, TEACH-mode programming can also be accomplished from a remote location using an external switch, computer or controller. The integral key pad may be locked remotely, providing added security by eliminating possible tampering with sensor adjustments.

Automatic gain control.
L-GAGE sensors feature Automatic Gain Control (AGC) to automatically compensate for varying colors, helping to minimize linearity errors.

Easy as 1, 2, 3!
Simple programming instructions (three short sentences) are printed on the side of the L-GAGE for permanent, easy access.
LG Series Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>Sensing Distance</th>
<th>Beam Size</th>
<th>Supply Voltage</th>
<th>Discrete Output</th>
<th>Analog Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG5A65PU</td>
<td>45.0 to 60 mm (1.77 to 2.36&quot;)</td>
<td>At 53 mm: 0.4mm x 0.6mm (focus = 70 mm)</td>
<td>12 - 30 Vdc</td>
<td>PNP (Sourcing)</td>
<td>0 - 10 Vdc</td>
</tr>
<tr>
<td>LG5A65PI</td>
<td>45.0 to 60 mm (1.77 to 2.36&quot;)</td>
<td>At 53 mm: 0.1mm (0.004&quot;) (focus = 53 mm)</td>
<td>12 - 30 Vdc</td>
<td>NPN (Sinking)</td>
<td>0 - 10 Vdc</td>
</tr>
<tr>
<td>LG5A65NU</td>
<td>45.0 to 60 mm (1.77 to 2.36&quot;)</td>
<td>At 53 mm: 0.1mm (0.004&quot;) (focus = 53 mm)</td>
<td>12 - 30 Vdc</td>
<td>PNP (Sourcing)</td>
<td>0 - 10 Vdc</td>
</tr>
<tr>
<td>LG5B65PU</td>
<td>45.0 to 60 mm (1.77 to 2.36&quot;)</td>
<td>At 53 mm: 0.1mm (0.004&quot;) (focus = 53 mm)</td>
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<tr>
<td>LG10A65PU</td>
<td>75.0 to 125 mm (2.95 to 4.92&quot;)</td>
<td>At 125 mm: 0.6 x 0.8 mm (0.024&quot; x 0.031&quot;) (focus = 180 mm)</td>
<td>12 - 30 Vdc</td>
<td>NPN (Sinking)</td>
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</tr>
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</tbody>
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Cable Options
2 m cables are standard.
9 m (30’) cables are available by adding suffix “W/30” to the model number of any cabled sensor (e.g., LG10A65U w/30).
Pigtail with 8 pin Euro QD available by adding “Q” to the model number (e.g. LG10A65UQ).
A model with a QD connector requires a mating cable (page 16).

LG Series Model Selection

LG Series Models

- Banner Engineering Corp. • Minneapolis, U.S.A.
- Website: www.banner.com • Tel: 888.373.6767

LG5 Models
- Analog resolution or discrete repeatability
- Color Sensitivity (typical)
- Temperature Effect
- Full Range Linearity
- Minimum window size
- Hysteresis (discrete output)
- Environmental rating
- Data sheet reference

LG10 Models
- Analog resolution or discrete repeatability
- Color Sensitivity (typical)
- Temperature Effect
- Full Range Linearity
- Minimum window size
- Hysteresis (discrete output)
- Environmental rating
- Data sheet reference

(models and specifications provided in the document)