

# Velocity Light Gate

The Light Gate (LG) is used to measure the velocity of a moving flag attached to a carriage or body



LG-1: Single beam light gate

LG-2: Light gate electronics box

- The LG-1 variant of the light gate is equipped with a single beam of focused light and a receiving sensor. The LG-1 measures the time it takes a flag or object of a known length to pass through.
- The LG-2 variant of the light gate is comprised of two individual components: the electronics box and the measurement head. The electronic box is equipped with dual beams of focused light and a matching set of receiving sensors. The light source and receiving elements are connected to the measurement head by means of four fibre optic cables. The measurement head can be custom manufactured for any unique application. The spacing of the fibre optic cables are set to a known distance on the measurement head.
- LG-2 light gate box comes with a reset switch to ensure that the light gate is in the proper signal state prior to conducting a test.
- The LG-1 and LG-2 are connected to a data acquisition (DAQ) system by means of a BNC coaxial cable. The DAQ will measure the time and calculate the velocity using the known flag width (LG-1) or beam spacing (LG-2)
- If no DAQ is available, the Biokinetics Velocity Field Display (VFD) can be connected to either light gate and it will display the velocity after receiving the signal from the light gate.

## Specifications

Speed Range:	0-100 m/s (minimum 50 mm spacing or flag width)	Part Numbers:	HLG-1 (single beam) HLG-2 (dual beam)
Signal Output	BNC Coaxial		

## Physical and Electrical

Enclosure Dimensions (L x W x H):	LG-1: 205 mm x 86 mm x 22 mm LG-2 (Box): 130 mm x 80 mm x 76 mm	Electrical:	120 VAC @ 60 Hz / 240 VAC @ 50 Hz 120 W max.
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## Warranty

All components:	1 year limited
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(All specifications are subject to change)