# Ultra Long Range, Multi-Function, Analog Laser Sensor

The new IL Series represents a significant advancement in laser displacement technology, incorporating performance features typically not found in other systems. The measurement range of this compact triangulation based laser sensor reaches a full 11.48 ft (3.5 m) with 3.94 mil (100 µm) repeatability, regardless of target color. An easy-to-use interface offers a simple approach to measuring height, thickness, liquid fill level, roll diameter, part positioning, width, long distance or hot metal part sensing. The IL Series control system includes numerous built-in, application specific operation modes including thickness and step height, enabling most installations to be configured and operational within seconds after powering on the system.

KEYENCE’s design offers a die cast steel sensor head (IP-67) to withstand almost any environment without failures. Although the sensor head is metal, it weighs a mere 2.1 oz. making it ideal for robotic applications when used with our specialty torsion rated cable.

No longer is calibration for thickness measurements a stumbling block. The IL Series has a dedicated mode that allows calibration to be completed in 3 simple steps. Also included is a height difference filter function. This function automatically recognizes abrupt changes in step height and delivers a one-shot output for each step. For stability the system employs an ambient light elimination function in order to counteract ambient light interference from overhead lights.

Unlike sensor head only models, the IL Series has many optional settings to tackle most sensing needs. For example, both NPN and PNP outputs are supported. Five types of analog outputs can be selected. For quick product changeover, 4 patterns of tolerance values can be set. Both panel mount and DIN-rail mount models are available. Finally, several communication choices are possible including analog, RS-232 and Ethernet/IP.

**Keyence Corporation of America**
888-539-3623; www.keyence.com [1]

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**Links:**
[1] http://www.keyence.com