The profile-measuring professional

**Profiler™ 2 short range distance sensor** - **Reliable despite difficult surfaces and ambient light conditions**

**Waldkirch/Nuremberg, November 2014 – Monitoring heights, angles and bending radii; measuring gaps, shapes and edges; inspecting the quantity of material used in adhesive beads and gap-free application – in numerous applications the camera-based Profiler™ 2 impresses with its high accuracy, user-friendly single-device concept, integrated control panel with color display, and economical price-performance ratio**.

**In a SINGLE device: profile measurement, evaluation, display and control panel**

The Profiler™ 2 is the first 2D distance sensor of its type designed as a single device. Profile measurement, evaluation, display and control panel are accommodated in a single robust housing made of durable shock-resistant plastic and with an enclosure rating of IP67. The sensor’s functional principle is based on a two-dimensional triangulation process. A fine and bright laser line is projected onto the surface of the target object within a measurement range of between 75 mm and 125 mm and is then mapped on a CMOS receiver element. The Profiler™ 2 converts the profile-dependent height shifts of the line on the object to highly precise x- and y-coordinate measurement values: a resolution of just 2 µm is achieved in the z-axis, for example. The electronics generate and store a 2D object profile from the measurement values, visualizing it on the sensor’s LC display or, via software, on a PC or control terminal. If the target object and sensor are located linearly to one another a three-dimensional profile of the object can be created by aligning the individual 2D light sections.

**Reliable despite difficult surfaces and ambient light conditions**

The combination of a precise laser line and intelligent evaluation processes allows very reliable measurements regardless of the color, material or structure of the objects – especially as the sensor offers appropriate camera modes for the most varied of surfaces. Optical and evaluation measures have also been taken to further increase ambient light immunity. Varying light conditions in the measurement area – between 17 mm and 27 mm wide depending on the measurement distance – have as little effect on the measurement results of the Profiler™ 2 as, for example, highly reflective surfaces.

**Economical in a wide variety of applications**

The Profiler™ 2 is currently the most reasonably priced sensor solution of its type on the market. This is due to the single-device design that deliberately does without a separate evaluation unit. This stand-alone concept makes the sensor hardware about 50% cheaper, for example. No mounting or cabling of additional components is necessary – minimizing installation costs. As a result, numerous quality-assurance inspection applications can be implemented highly economically with the Profiler™ 2. Multiple edge and gap-size monitoring on the doors, hood and trunk lid of a car chassis is a typical application in automotive production. The gluing of components has become a core process in vehicle construction, as in many other areas of industrial assembly. The 2D distance sensor Profiler™ 2 can monitor the application of adhesive beads for the right amount of material used and the lack of gaps. In the processing industries, the angle and bending radii of sheet metal, aluminum or plastic profiles can be very precisely measured. Inspection of the length and height geometries of circuit boards and board assemblies are a typical area of use for the Profiler™ 2 in the electronics industry. The sensor permits reliable web edge control during the processing of continuous materials such as paper or non-woven materials.