

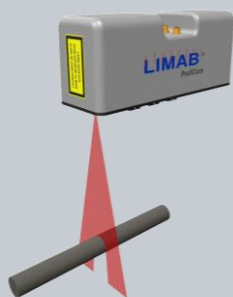
ProfiCura Smart

Smart 2D laser sensor with selectable measurement modes



ProfiCura – Our 2D sensor family

ProfiCura is our range of high definition 2D laser profile sensors that have been developed for in-process measurement for industrial applications. Using the latest developments in image processing the sensors will capture the 2D profile of all types of material. They have been developed to meet the needs of harsh industrial applications.

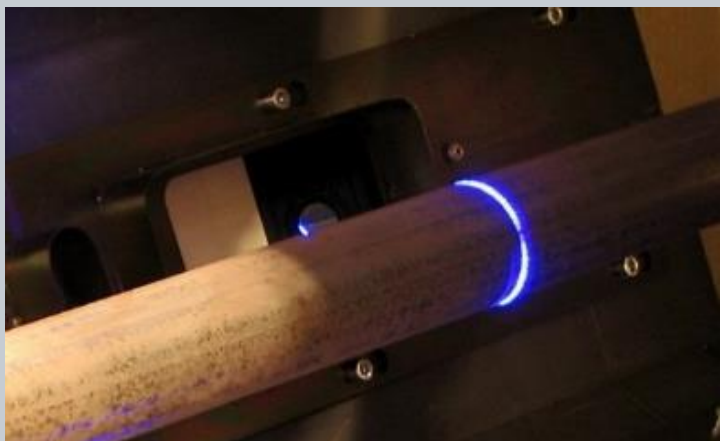


High accuracy 3D scanning

The ProfiCura sensors projects a laser line on the measurement target. This laser line is reflected back on a two-dimensional CMOS array detector in the sensor. By using 2D laser triangulation, the exact dimensions and shape of the object can be measured. To improve the measuring performance an advanced modified center of gravity processing algorithm is utilized. Several post-processing methods are available in the sensor.

The ProfiCura can measure on both cold and hot objects as well as on different material qualities. Since measurements normally are done on a moving object, the shape of the object can be fully scanned.

The ProfiCura range consists of several sensor versions. Depending on the installation location and the object to be measured, different configurations regarding stand-off, measurement range and field-of-view can be selected.



LIMAB sensors

LIMAB sensors are designed and manufactured at our HQ in Göteborg, Sweden. The sensors we are offering are also used in our own measurement systems. We offer high-end measurement systems for applications in saw mills as well as in the steel and panel industry.


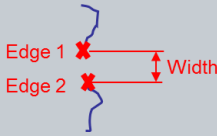
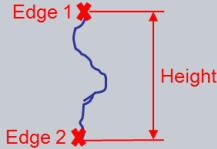
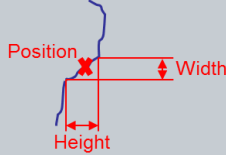
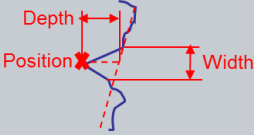
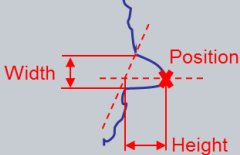
Accessories

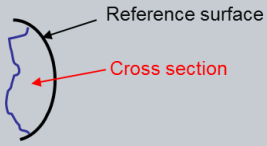

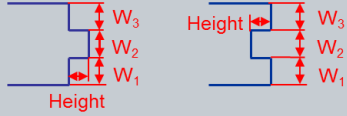
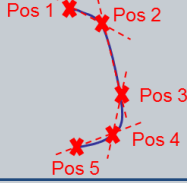
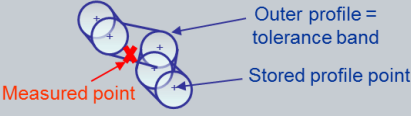

All our sensors can be delivered with several accessories, such as mounting brackets, communication cables, air knives, cooling boxes, Windows-based programming kit for sensor set-up and calibration tools.

ProfiCura Smart

The ProfiCura Smart Sensor is a version of the ProfiCura series, where pre-defined measurement modes can be selected. The sensor has a large capacity in terms of calculation capability and memory, which makes it possible to have all measurement algorithms integrated in the sensors. Analogue, digital or different fieldbuses, such as Profibus and Modbus, are available as direct output of the measurement results. Several sensors can be configured together in a master-slave mode. The sensor set-up is done through an easy-to-use configuration tool.

Examples of selectable measurement modes (output values in red).

Mode	
Min/Max/Average	
Gap Width	
Object Edge	
Step Height	
Groove	
Bump	

Mode	
Cross Section	
Fit-to-Circle	
Tongue & Groove	
Board Model	
Profile Tolerance	
Thickness Mode	

Benefits ProfiCura sensor family

- High speed measurements
- High resolution along the laser line
- High accuracy, repeatability and stability
- Factory calibrated
- Versions for hot and cold applications
- Off-the-shelf product

Benefits ProfiCura Smart

- Selectable and pre-defined measurement modes
- No need for external device. Direct output
- Integrated Fieldbus interfaces
- User friendly product configurator
- Possibility for master-slave set-up

LIMAB ProfiCura Smart

Technical Specification

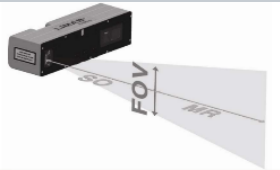
Sensor

Measuring technique
Operating temperature
Data interface
Field bus interface
Laser
Laser class
Power supply
Protection class
Measurement speed
Data points per profile

ProfiCura Smart

2D laser triangulation
0°C ... +40°C
Ethernet
All major buses such as Modbus and ProfiBus
Visible red or blue laser
3B
10 ... 36 VDC
IP65
240 - 1.000 Hz
480 - 640/sensor

ProfiCura (mm/inch)	50/50H	85/85H	170/170H	180/180H	300/300H
Stand-off	170/6.7	185/7.3	350/13.8	700/27.6	900/35.4
Measuring Range	50/2.0	200/7.9	320/12.6	1.000/39.4	1.000/39.4
FOV at SO	50/2.0	85/3.3	170/6.7	180/7.1	300/11.8
FOV at SO+MR	60/2.4	175/6.9	325/12.8	440/17.3	630/24.8
Dimensions (H x D x W)	134 x 162 x 387 / 5.3 x 6.4 x 15.2			134 x 162 x 515 / 5.3 x 6.4 x 20.2	



We reserve the right to introduce modifications without prior notice

LIMAB – the complete solution provider for non contact dimensional measurements

Our core capability resides in our ability to deliver effective laser scanning sensors and systems for our customers. Through our experience and understanding of your needs, we engineer and produce sensor and system solutions that will fulfil your requirements of best-in-class technology and quality.

LIMAB was founded 30 years ago and has a long tradition of developing and manufacturing laser based technology. We supply laser guide lines, laser sensors and complete systems for dimensional and profile measurement in sawmills, panel production and steel mills. Headquarters and manufacturing plant is located in Gothenburg, Sweden. LIMAB has regional offices in the USA, UK, Germany and Finland as well as approved distributors and partners in other regions.



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