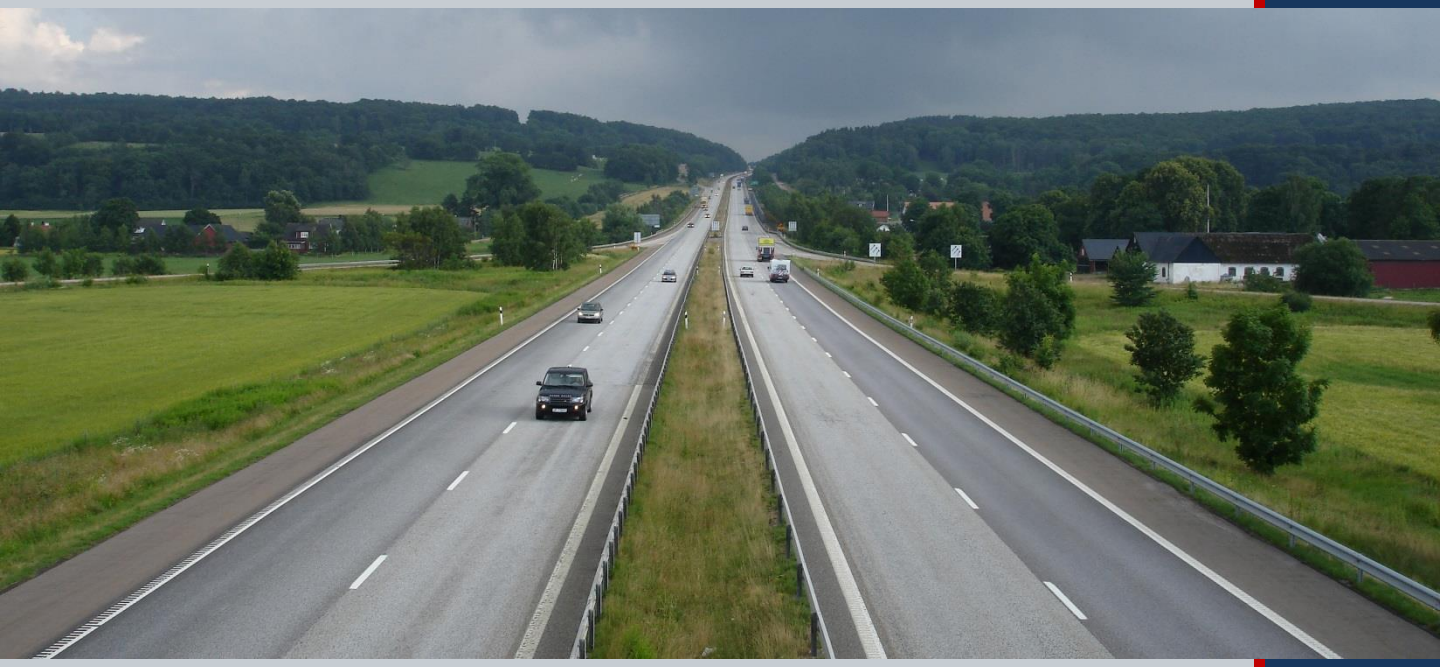
LIMAB®
CONTROL BY MEASUREMENT

RoadRun

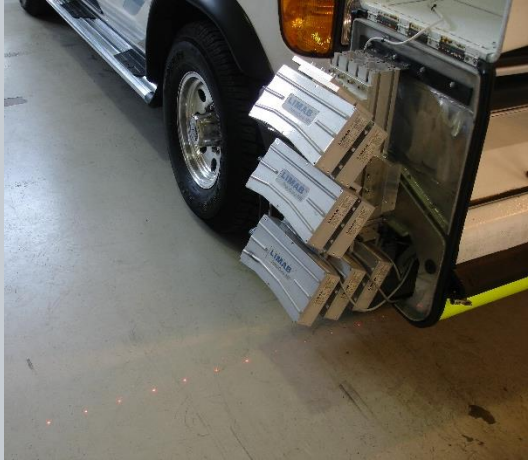
High precision laser sensors for road profiling



Laser Sensors for Road Profiling

LIMAB offers laser sensors for Road Profiling and measurements of rutting, IRI, longitudinal profile, transverse profile and texture.

Road Profiling is a very demanding sensor application and requires high sampling speed, high accuracy and reliability in harsh environments. LIMAB has taken all this into account and developed the Road Profiling product family RoadRun.



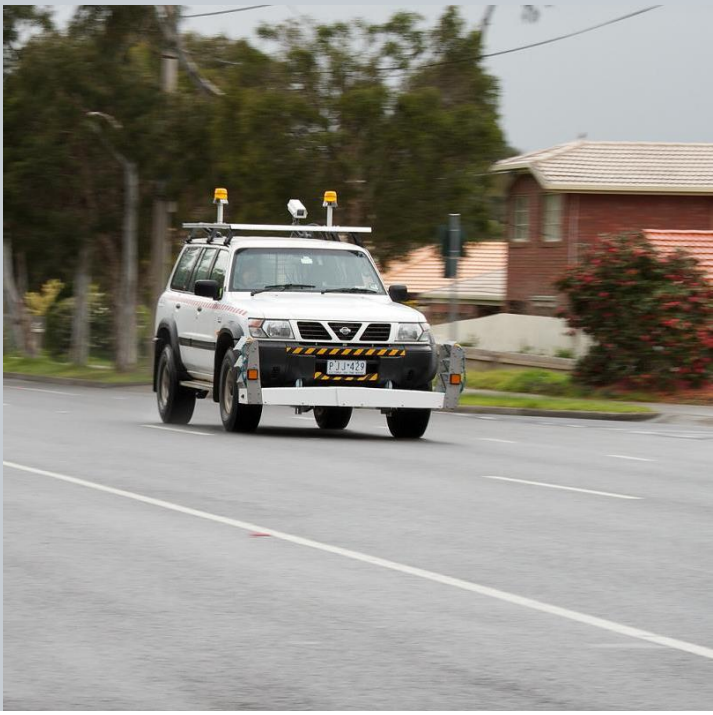
RoadRun – Based on a long tradition

LIMAB has designed and produced laser sensors for over 30 years and has an extensive technology knowledge in this field. More than 20.000 sensors have been installed all over the world in large variety of applications. During this period, LIMAB has released several generations and different versions. The sensors of today are robust, rugged and versatile for use in the toughest applications. The RoadRun sensor family is specially designed for road profiling.

High accuracy distance measurements

The RoadRun sensor uses the principle of laser based optical triangulation. A laser spot is projected on to the road surface. The laser spot is diffusely reflected by the surface and focused to a CCD detector by a high quality lens system. The position of the reflected light on the CCD array varies according to how far the target is from the sensor. The processor converts the pixel position to a mm position using a unique calibration look up table stored within the sensor. Several post-processing possibilities are available, like different types of filtering algorithms.

All RoadRun sensors are self-contained and all signal processing is done in the sensors. RoadRun System is available with Ethernet output interface.



LIMAB

Product development and production is done at LIMAB, which makes it possible to have full control of our products and offer high quality sensors according to the requirements of our customers.
We can offer local support through our subsidiaries or our network of certified partners.

Road Applications

- Rutting
- IRI
- Longitudinal profile
- Transverse profile
- Texture

Unique features

- Rugged and industrial design

All sensors have double windows in order to minimize the risk for condensations and are passing leakage and mechanical chock tests before shipment.

- Increased resolution and accuracy

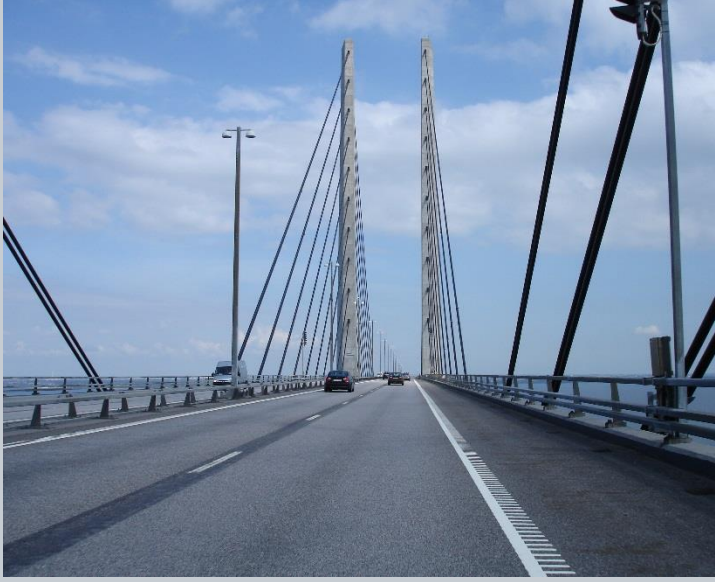
The RoadRun System sensor has an integrated center-of-gravity evaluation of the measured distance and a 16-times sub-pixling algorithm.

- Range mask property

The possibility to perform range masking of the measurement range will minimize the need of spare sensors.

- Ethernet interface

The RoadRun sensor family includes versions with different sampling frequencies. RoadRun System sensors are with Ethernet output interface.



Benefits

- No extra control unit

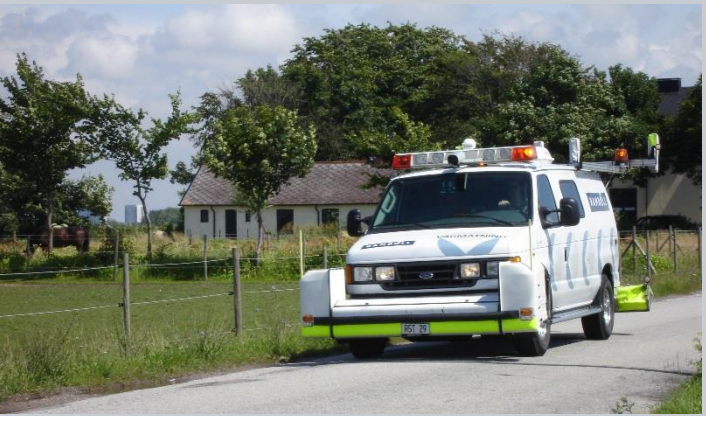
The RoadRun sensor is self-contained without need for any external control units. This saves integration time and weight

- Low external influence on sensitivity

CCD evaluation of distance minimize the influence for secondary reflections and background radiation

- Low noise

The RoadRun family includes state-of-the-art sensors with a very low noise ratio.



Further benefits

- High speed measurements
- High accuracy, repeatability and stability
- Factory calibrated
- Easy set-up with PC configuration tool
- Off-the-shelf product

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.

LIMAB RoadRun Sensor Family for Road Profiling

Technical Specification

RoadRun

Measuring technique	Optical laser triangulation
Operating temperature	0°C … +40°C
Data output interface	Ethernet
Laser	Visible red laser
Laser class	Laser Class 3B according to EN 60825-1:2014 and 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007
Power supply	10 … 36 VDC
Protection class	IP67
Measurement speed	4 - 32 kHz
Dimensions	SR: 165 x 112 x 44 mm/6.5 x 4.4 x 1.7” MR: 300 x 155 x 54 mm/11.8 x 6.1 x 2.1”

RoadRun	Article Number	Sampling Frequency (kHz)	Stand-Off (mm/inch)	Measuring Range (mm/inch)	Application
RoadRun SR System	96574	4	200/7.9	200/7.9	Rutting, Transverse profile
RoadRun MR System	96610	4	300/11.8	1.000/39.4	Rutting, Transverse profile, Side projection
RoadRun SR System 32	96670	32	200/7.9	200/7.9	Texture, Roughness (IRI)

We reserve the right to introduce modifications without prior notice

LIMAB was founded more than 30 years ago and has a long tradition of developing and manufacturing laser based technology. In addition to road profiling sensors, 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 and Germany as well as approved distributors and partners in other regions.

SP Certified ISO 9001 ISO 14001

LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT

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V1.105102012