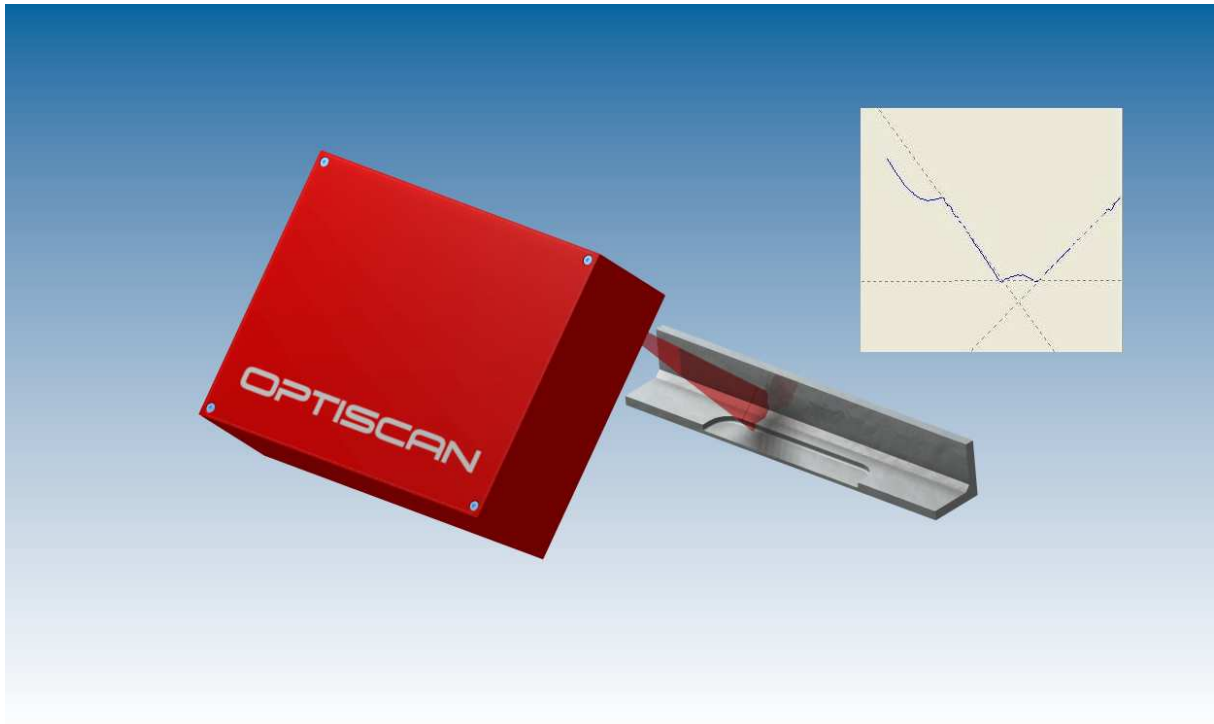


# Non-contact Laser Measuring System



## OPTIsScan

The non-contact, dimensional laser scanner **OPTIsScan** is a special version of a **OPTImess** sensor.

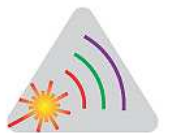
In the **OPTIsScan** the laser beam is projected on the object in the form of a line by an optical system. Using a second mirror on the same axis deflects the received beam onto the detector.

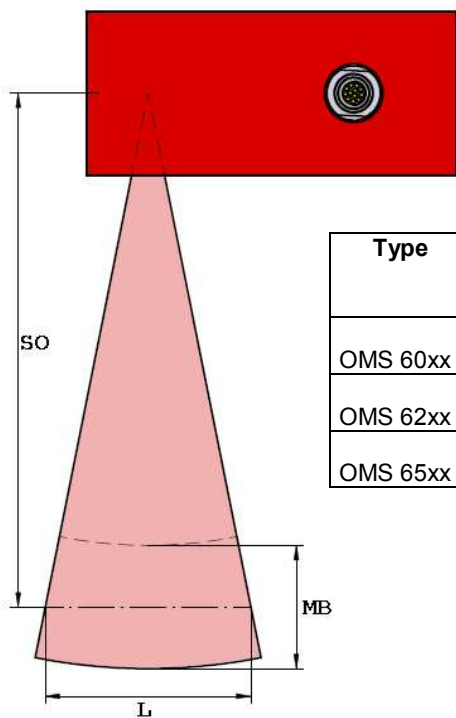
This enables the vertical distance to be measured precisely along a line. The horizontal position is determined by an angle measuring system at the mirror inversion axis.

This type of sensor is useful for many applications in which a standard **OPTImess** sensor has to be moved horizontally by mechanical means.

Typical applications for the **OPTIsScan** are:

- welding seam inspection
- profile measurements
- geometry measurement
- gap determination
- rail head measurements





Type	MB [mm]	L [mm]	Dimensions [mm] length x width x height
OMS 60xx	10/20/40/80	10/20/40/80	180 x 140 x 60
OMS 62xx	40/80/120/200	40/80/120/200	230 x 180 x 80
OMS 65xx	400/800/1200/2000	400/800/1200/2000	300 x 250 x 100

Measuring method	Dynamic triangulation
Scan frequency	0-20 Hz
Linearity (typ.)	< +/- 0.05% of MR
Resolution	0.1% of MR
Sampling rate	up to 50 kHz
Bandwidth (jump response -3dB)	up to 20 kHz
Measured value output	digital, RS485 / RS232
Power supply	+/- 15V 250 mA
Light source	GaAlAs laser diode 670 nm (red), 820 nm (infrared)
Detector	CCD or PSD detector (application-dependent)
Spot size (in stand off)	0.01 - 3 mm
Operating temperature	0° - +40° C
Thermal drift	< 100 ppm of MR./°C
Vibration	5 g (IEC 68-2-6)
Shock	25 g (IEC 68-2-27)
Operating time laser diode (typ.)	50 000 h
Degree of protection	IP 65

