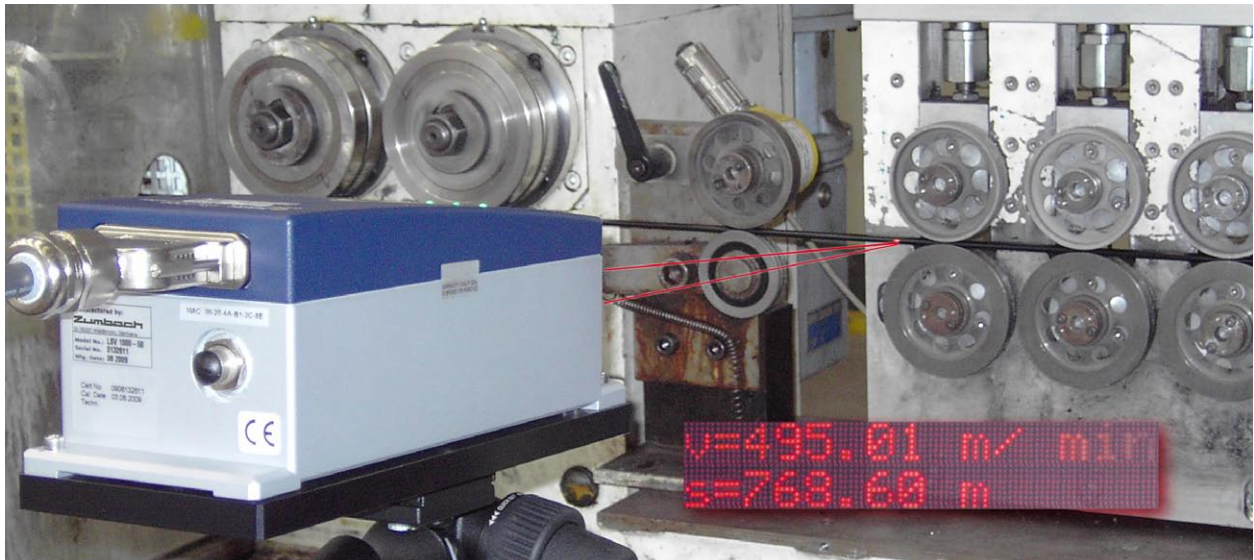


## LSV 1000 / 2000



### Non-contact Precision Speed and Length Measurement

Precision speed and length measurements are critical for optimization of continuous or quasi-continuous production processes. Proper utilization of these measurements can lead to lower production costs and higher product quality. The ideal sensor must exceed traditional contact encoder performance, increasing reliability and accuracy while minimizing maintenance requirements and material yield.

The LSV Laser Surface Velocimeters have been designed as the ideal next generation sensors for non-contact length and speed measurement. They provide precise length and velocity data quickly and reliably for both process control and cut-to-length applications.

The LSV 1000/2000 measure reliably on almost any solid surface, whether controlling processes utilizing carbon steel, shiny aluminum or oily sheets, or producing round wire and cable, or manufacturing paper, cardboard or tissue.

### Compact, Reliable, Inexpensive and Profitable

- Zero speed, direction detection (only LSV 2000)
- Reduced operating and maintenance costs
- Attractive ROI, fast payback
- All-in-one system, easy integration into production processes and control environments
- Easy to operate and no re-calibration required
- Visible laser for easy alignment in the field
- Robust sensor technology for reliable operation even under harsh conditions, protection classes IP 66 and IP 67
- Fast, state-of-the-art signal processor with powerful command set for efficient system communication via serial or Ethernet interface
- Includes two trigger inputs for additional light barriers or optical switches for high precision edge detection and offset length compensation
- Hardware status signals for remote diagnostic functions available
- User-selectable full quadrature pulse output and interfacing as LAN & RS 422/232

## TECHNICAL DATA

Metrological Properties	LSV 1000	LSV 2000 (zero speed, automatic direction detection)
Nominal working distance in mm (in.)	300 (11.81)	300 (11.81)
0.1% Depth-of-field in mm (in.)	±20 (.79)	±60 (2.36)
Min. velocity in m/min (ft/min)	0.53 (1.74)	-7700...0 (-25'262...0)
Max. velocity in m/min (ft/min)	1.535 (5.03)	0...+7700 (0...+25'262)
Measurement units	mm/s, m/min, m or ft, ft/s, ft/min (selectable)	
Accuracy	<0,05 % of reading (under controlled conditions)	
Reproducibility	<0,02 % of reading (under controlled conditions)	
Measurement value output rate	1024 s <sup>-1</sup>	
Standard interfaces	- RS-422	
	- LAN (10/100 Mbit/s)	
	- RS-232	
	- Encoder (user-selectable, max. 500 kHz)	
- 24V status I/O		

Housing and Power	
Weight	4.3 kg (9.48 lbs.)
Protection class	IP 66 und IP 67 (according to EN 60529)
Power consumption	24VDC / max. 15W
Operating temperature	0...45°C (32...113°F)
Relative humidity	Max. 80 %, non-condensing

Optics	
Wavelength	690 nm (visible beam)
Laser power	Max. 25 mW
Laser class	3B
Beam diameter	2 x 4 mm (.08 x .16 in.)

All units, which are equipped with lasers, were designed to meet the regulations CDRH (USA), BS 4803, EN 60825-1:2008, DIN/VDE 0837 and SEV TP 76/1A-D. They hold the warning and explanatory labels prescribed by EN 60825-1:2008.



## ACCESSORIES

### Connection Box

The Connection Box is completely wired for instant operation and contains a full terminal block, a universal power supply and a LAN connector.



► Further accessories on request.

### Mobility Kit

Small light-weight power adaptor and interface for mobile measurement. Direct connection of LSV 1000/2000 to notebook possible.

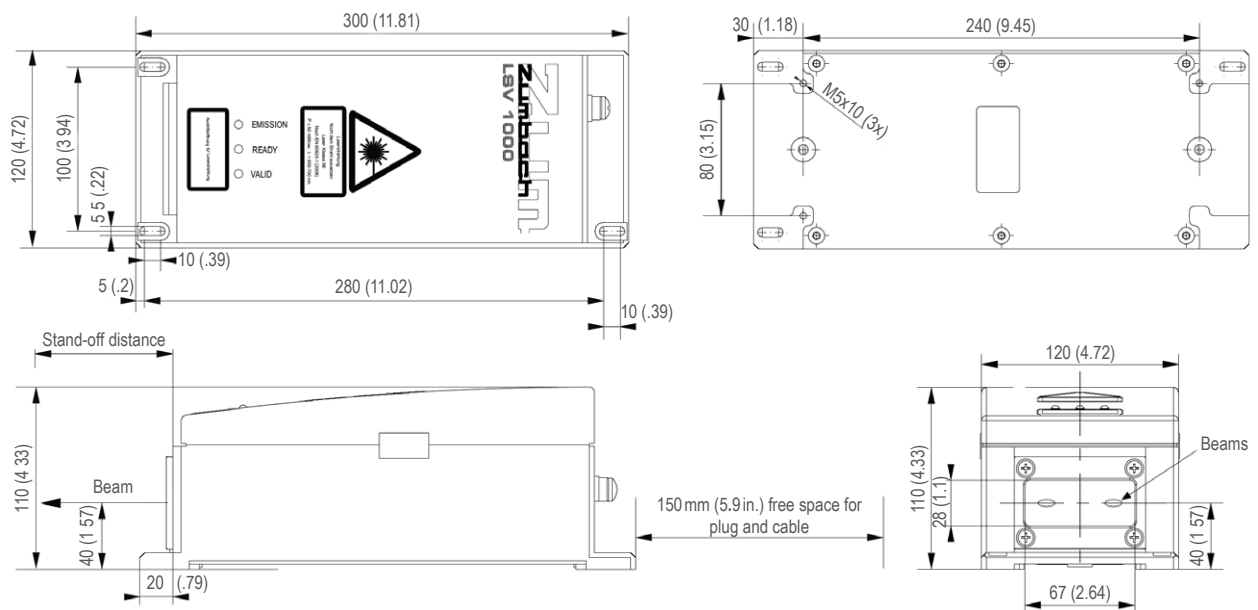


### Cooling Plate

The cooling plate keeps the sensor in its operational temperature range, even under hot ambient conditions.



## DIMENSIONS



Dimensions in mm (inch)

• Technical specifications are subject to change without notice

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