

LSV-MID System



Polytec Laser Surface Velocimeter

- LSV-1000
Laser Surface Velocimeter
- LSV-MID System
- LSV-2000
Laser Surface Velocimeter
- LSV-300
Laser Surface Velocimeter
- LSV-6000
Laser Surface Velocimeter

Measurement of Length and Velocity for Calibrated Machines

Wherever goods are sold by length in the EU, they must be cut using calibrated machinery. The requirements for the corresponding instrumentation and data storage are summarized in the European "Measurement Instrument Directive 2004/22EC" – abbreviated to MID. Polytec offers a system for non-contact length measurement that fulfills the requirements of MID and additionally has a certificate attesting suitability for calibration of the PTB, Germany's national metrology institute in Braunschweig.

Polytec signifies Experience

For many years Polytec has been a supplier of sophisticated and high precision laser measurement technology. Especially when it comes to non-contact velocity and length measurement Polytec has made its mark by supplying devices that prove to be reliable under all operating conditions.

Measure without Contact – Avoid Errors

The non-contact length measurement has many advantages over tactile methods. There are no errors through slippage or abrasion; sensitive surfaces are not damaged.

Certified Laser Precision

Polytec's Laser Surface Velocimeter (LSV) use the laser Doppler principle to measure length and velocity with high precision. For the application in calibrated machines there is also a PTB-approved version that meets the requirements of MID 22/2004. The precision is even higher than accuracy class I and its measurement value of $\pm 0,125$ percent.

Convenient, Complete, Integrated

The system contains a LSV-1000-20 sensor head and a junction box with an integrated panel PC and control software. The use is convenient and at the same time very safe. To integrate it in a process the system features all encoder- and trigger connections. They can be connected until the junction box is sealed. The data are easily accessible via Ethernet.

Technical Data

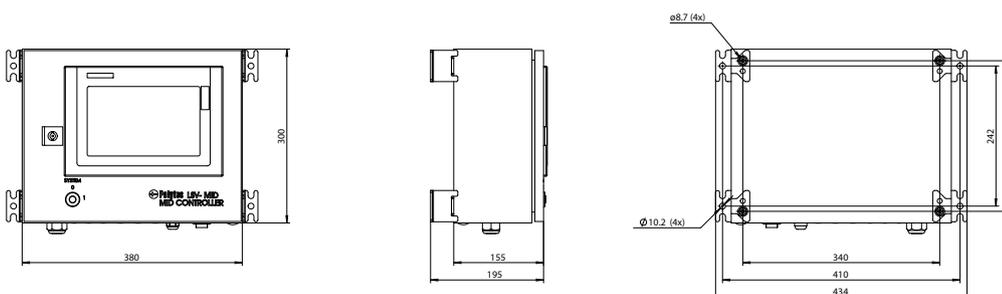
MID Conformity	
Accuracy class	I
Tolerance	±0.125%
Min. length	1 m
Max. length	100,000 m
Speed range	1 m/min ... 800 m/min

Hardware	
Measurement modes	External Trigger, Cut Mode
Signals hardware	Encoder, 24 Volt Status I/O
Interface	Ethernet
Data Processor	Siemens Panel-PC with 7"-Touchscreen - integrated in junction box - display of measurement values
Data storage period	min. 90 days according to requirement MID 2004/22/EC
Resolution	800 x 480

Housing and Power	Sensor Head	Electric Control Cabinet
Dimensions (L x W x H)	300 mm x 120 mm x 110 mm	434 mm x 300 mm x 195 mm (see figure below)
Weight	4.3 kg	~9.7 kg
Protection class	IP66 and IP67 (according to EN 60529)	IP66 (according to DIN EN 60529)
Power consumption	24 V DC / max. 15 W	
Operating temperature	+0 ... +45 °C	
Relative humidity	max. 80%, non-condensing	

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

Metrological Properties	
Nominal working distance	200 mm
0,1% Depth-of-field	±15 mm
Measurement unit	Meter



More Information

For more information please contact your Polytec application/sales engineer or visit www.polytec.com/lsv.

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