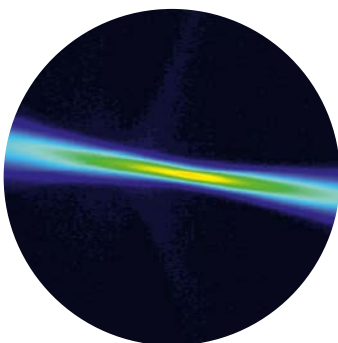


# LPM200

Laser Propagation Monitor for  
quality control of laser beams



» The Laser Propagation Monitor 200 (LPM200) is a beam profiler for automated determination of the focusing ability and beam quality parameter  $M^2$  of lasers in industrial applications. Measuring  $M^2$  and caustic only requires about 10 seconds. «



- The LPM200 is designed for the automated determination and monitoring of lasers and the beam parameters of laser beams with long Rayleigh lengths where standard beam profilers do not provide sufficient functionalities. The LPM200 system includes an optical system for imaging the laser beam caustic as well as a linear stage to scan this image. The choice of two different magnifications as well as various optical filters complete this compact measurement system.
- Acquisition and analysis of data is handled by the proven Beamlux-Software using the included  $M^2$ -Tool which is optimized for Measurement according to the standard ISO 11146. User control is provided either directly or remotely through a customized BLFE software front-end. The combination of this system with the SAMM Control- and Evaluation Module for Metrolux Measurement Devices in particular enables a quick and easy configuration and integration into production processes.
- The automated  $M^2$  measurement in strict conformity with ISO 11146 can be achieved within 30 seconds. Reliable results can generally be obtained in as little as 10 seconds.
- The system is optimized for fiber and YAG lasers and is being successfully used in the laser industry. A comprehensive series of accessories for attenuation and absorption of laser light strongly extends the application range of the LPM200.

# LPM200

## Technical specifications

---

**Sensor type**

2/3" CCD

**Resolution**

1388 x 1036 pixels

**Pixel size**

6.45 µm x 6.45 µm

**Light-sensitive area**

9.0 mm x 6.7 mm

**Digital output**

12 Bit

**Maximum frame rate**

15 fps

**Camera control standard**

GenICam V. 1.0

**Wavelength**

340-1100 nm

## Dimensions and interfaces

---

**Beam entrance aperture**

M31,5 x 0,5 thread

**Digital interface**

GigE Vision V. 1.0

**Synchronization**

external trigger (5 V TTL) or free running

**Dimensions (L x H x W)**

314 mm x 125 mm x 140 mm

**Weight**

6,75 kg

**Power supply**

24 V DC, 2,5 A

**Conformity**

CE, REACH, RoHS, FCC

Applications: caustic measurement, determination of  $M^2$  between 1 and 30 according to ISO 11146

---

**Laser power**

< 10 W without additional modules

**Beam size, collimated**

250 µm to 15 mm

**Magnifications**

1,4 x to 7,6 x

Complete caustic  
scan **in 10 s**

**Automated**  
 $M^2$ -measurement

Laser qualification  
according to ISO  
**11146 in 30 s**