SIKORA
LASER PRO

SIKORA's new LASER PRO sets even higher standards in the field of cable diameter measurement. Designed based on the trusted LASER Series, which has been used in numerous extrusion lines worldwide for several decades, the new series includes additional user advantages. The LASER PRO comprises three innovative models for product dimensions from 0.1 to 51 mm.

Precise and repeatable measured values

The diffraction analysis in combination with pulse-controlled laser diodes results in an impressive 500,000 measuring points per second per measuring axis in the entire measuring field. This results in 5,000 accurately measured values per second per measuring axis. This ensures that the values supplied are both accurate and repeatable.

Precise measured values despite vibrations

Thanks to the extremely short exposure time of less than 1/1,000,000 seconds, the individual precisely measured values per second per axis are captured with maximum image sharpness. This ensures absolute measuring accuracy, even at high line speeds with product vibrations. Each individually measured value achieves an extraordinarily high single value accuracy.

Robust technology and high availability

The non-contact measuring technology of the LASER PRO works entirely without moving parts and is therefore maintenance and wear-free. A single calibration before delivery is sufficient to guarantee precision for the lifetime of the device. The availability of the laser measuring heads is 99.8 %.

FFT analysis for detecting irregularities during extrusion

The LASER PRO offers the option of FFT analysis to detect periodically recurring variations in cable parameters as well as predict the expected return loss (SRL). These are important tools for producing high-quality cables and detecting irregularities during cable extrusion.

Website

www.sikora.net/en/products/laserpro
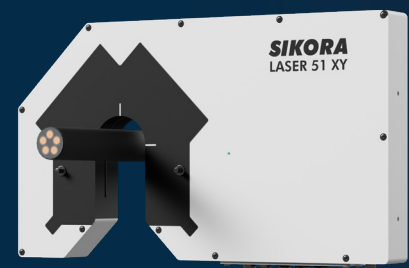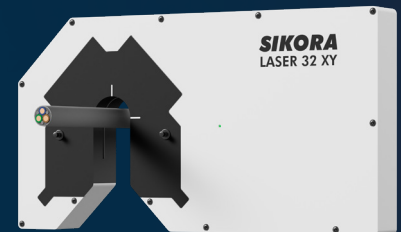
Slim design with swivel concept

The measuring heads of the LASER PRO family provide the ultimate functionality with their compact and slim design. The optical components are located in protected areas. The diffraction analysis detects unavoidable, gradually occurring contamination in real time and reports it. All models are designed to be open at the bottom so that neither water nor dirt can fall into the measuring head. The swiveling measuring head concept allows the device to be swiveled out of the working area if required.

Clear visualization and control of the diameter

The measured values of the LASER PRO are displayed on the ECOCONTROL. Trend data, statistical functions, FFT and SRL analyses can also be viewed. The SET POINT control module can be used to control the diameter to the setpoint or minimum value.

Using the new LASER PRO ensures the highest wire quality, optimizes production and saves costs at the same time.

Your benefits:

- High measuring rate for precisely and repeatably measured values, 500,000 measuring points, 5,000 high-precision measured values (per second/per measuring axis)
- Precise measured values despite vibrations
- Robust technology and high availability
- Slim design with swivel concept
- FFT analysis for detecting irregularities during extrusion
- Clear visualization and control of the diameter
- Highest cable quality, optimized production and cost savings

Specifications – the LASER PRO at one glance

	LASER 13 XY	LASER 32 XY	LASER 51 XY
Measuring range	0.1-13 mm	0.5-32 mm	0.5-51 mm
Visible range	20 mm	35 mm	60 mm
Accuracy	± 0.5 μm	± 1.0 μm	± 1.0 μm
Repeatability	± 0.1 μm	± 0.2 μm	± 0.5 μm
Exposure time	< 1/1,000,000 sec		
Measuring rate	500,000 measuring points, 5,000 high-precision measured values (per sec/per measuring axis)		400,000 measuring points, 4,000 high-precision measured values (per sec/per measuring axis)
Power supply	100-240 V AC		
Interfaces	USB, Ethernet Optional: Profibus-DP, Profinet IO, EtherNet/IP, DeviceNet, analog outputs, digital inputs and outputs		
Dimensions (LxWxH; housing only without interfaces)	392 x 51 x 202 mm	486 x 51 x 257 mm	497 x 51 x 282 mm

Technical data is subject to change

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