

# LASER Series 6000

High-end diameter gauges for cable production lines











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## LASER Series 6000 for high-end diameter measurement and detection of lumps and neckdowns

No other diameter gauge head attracts as much attention as any of the three models of the LASER Series 6000. The gauge heads combine a variety of new technological features for the highest precision and reliability for sustainable improvement of the productivity and reproducibility of production processes regarding "Industry 4.0".

The LASER Series 6000 measures transparent as well as non-transparent products.

Up to 5,000 measurements per second per axis, all with extremely high single value precision, allow for optimum line control, provide reliable statistical data, and allow the detection of lumps and neckdowns. The SIKORA gauge heads measure the diameter of cables with impressive precision and repeatability. Three gauge head models cover product diameters from 0.2 to 78 mm.

#### Typical features

- Innovative CCD line sensor technology combined with pulse controlled laser diodes
- Impressive precision
- Up to 5,000 measurements per second per axis
- Integrated lump detection function
- Integrated LCD display
- Universal interface module for all connections
- Optimum installation and protection of connection cables
- Two-year warranty



#### Integrated display in the gauge head

The devices include an integrated LCD display that provides the operator with diameter values at one glance, directly at the measuring device.

#### Lump detector function

The high measuring rate of the diameter devices also permits the detection of lumps and neckdowns. With the two-in-one system, investment costs are reduced. In addition, there is more space in the line as both functions are integrated into one gauge head.

#### Functional design in perfection

A special feature is the swivel type gauge head. Conveniently, the gauge head can be moved up and out of the line, for example during production changes. The measuring heads are open at the bottom to prevent dirt and water from falling into the measuring area. The feeding of the connection cables to the interface module is protected against water, dirt and mechanical influences, directly in the gauge head stand.

The opening range of the gauges is twice as large as the measuring range, for an easy and safe passage of the product and possible joints.

#### Interfaces + Industry 4.0

A universal interface module is directly integrated into the gauge head for any connections such as RS485, RS232, Profibus-DP or alternatively an industrial fieldbus such as Profinet IO, EtherNet/IP, CANopen, DeviceNet or OPC UA. With these interfaces, the device series is best equipped under the aspect of "Industry 4.0".



## LASER Series 6000

ISO 9001 QUALITY SIKORA Certified according to DIN EN ISO 9001

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### Technical Data LASER Series 6000

Product Name	Product Diameter	Accuracy*	Repeatability	Exposure Time	Dimensions
LASER 6020 XY	0.2 - 18 mm	± 0.2 µm	± 0.1 µm	0.2 μs	345 x 200 x 65 mm
LASER 6040 XY	0.5 - 38 mm	± 0.5 µm	± 0.2 µm	0.2 µs	420 x 290 x 65 mm
LASER 6080 XY	1.0 - 78 mm	± 1.0 µm	± 0.5 µm	0.2 µs	705 x 535 x 65 mm

#### Measuring Rate

2,500 measurements/sec/axis

5,000 measurements/sec/axis for LASER 6020 XY (optional)

#### Interfaces

RS485, RS232, LAN

Optional: Analog output or alternatively industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet, OPC UA)

#### **Power Supply**

100 - 240 V AC  $\pm$  10 %, 50/60 Hz, 30 VA

\*  $\pm$  0.01 % of the measured value

Technical data is subject to change

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