

LUMP 2000

2-axis and 3-axis lump and neckdown detectors for extrusion and rewinding lines with unique double sensor technology



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With the LUMP 2000 devices, SIKORA offers outstanding technology for the detection of lumps and neckdowns on the surface of wires and cables. By using two or three measuring planes, the systems detect the smallest non-conformities at any line speed.

Unique double sensor technology

Impressive is the intelligent double sensor technology, which distinguishes the LUMP 2000 devices in their performance. By using two sensors, so-called "ghost faults" are avoided. These faults are caused by light fluctuations from the outside, and therefore, are no real faults. The double sensor technology, where the difference between both sensors is evaluated, thus allows the reliable detection of "real" faults. A powerful signal processor evaluates the number, height, depth and length of the fault location. The combination of the double sensor technology (differential measuring principle) with infrared light sources assures a fault detection with highest reliability, even under difficult conditions such as dirt, dust or extreme vibration. The lump detector is robust and can easily be installed in every extrusion line or rewinding machine lines due to its small dimensions.



Innovative answer for all applications

The XY gauge heads LUMP 2010 XY and LUMP 2025 XY are suitable for product diameters from 0.5 to 10 mm and 0.5 to 25 mm, respectively. The LUMP 2000 XY models are perfect for the detection of larger faults and bamboo rings.

T for Triple: Fault detection with highest reliability

The triple-axis measuring principle of the LUMP 2000 T devices is focused on the detection of punctual faults with consistently high detection probability, and thus, sets new technological standards. The LUMP 2010 T and LUMP 2035 T are applicable for product diameters from 0.25 to 10 mm and 0.5 to 35 mm, respectively.

Special model for demanding applications

For the detection of lumps and neckdowns down to a size of 5 μ m at product dimensions from 0.1 to 0.5 mm, a special model is available. Please refer to our catalog for optical fiber measurement.

Triple-axis lump detector for transparent products

A special edition of the LUMP 2010 T offers the additional future-oriented technology for the detection of lumps and neckdowns on transparent materials. The gauge head is available for product diameters from 0.25 to 10 mm.

Intelligent and functional design

Another striking feature of the triple-axis devices is the sophisticated design. The gauge heads are open at the bottom to prevent dirt or water from contaminating the measuring plane and allowing for the easy movement of the gauge head, up and out of the extrusion line.

Display solutions

The setting of tolerances and the numeric display of lumps and neckdowns is realized with the REMOTE 6000 or a processor system of the ECOCONTROL series. Alternatively, the LUMP 2000 devices can be directly integrated into the line control via a universal interface module.

Interfaces

The LUMP 2000 devices offer diverse interfaces such as RS485 or a RS232 diagnosis interface for direct connection to a PC or the display and control device REMOTE 6000. Optionally, a Profibus-DP interface or an industrial fieldbus such as Profinet IO, EtherNet/IP, CANopen or DeviceNet are available.

Reporting

In combination with the REMOTE 6000 or any of the processor systems of the ECOCONTROL series, the LUMP 2000 devices provide length related recordings of lumps/neckdowns.



The swivelling gauge head design of the 3-axis devices allows to easily move up the gauge head out of the extrusion line



Detected flaws are visualized on the display and control device REMOTE 6000

Outstanding features

- 2-axis and 3-axis lump and neckdown detection
- 3-axis lump and neckdown detection for transparent products
- Highest reliability due to double sensor technology
- Fault analysis regarding type, dimension, length, number and position

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- Easy to integrate into existing lines
- Elimination of "ghost faults"

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Technical data LUMP 2000 T

	LUMP 2010 T *	LUMP 2035 T		
Product Diameter**	0.25 - 10 mm	0.5 - 35 mm		
Min. Fault Length	0.5 mm	0.5 mm		
Speed Range	1 to 3,000 m/min	1 to 3,000 m/min		
Dimension	250 x 150 x 62.5 mm	360 x 290 x 38.5 mm		
Power Supply	100 - 240 V AC ± 10 %, 50/60 Hz	100 - 240 V AC ± 10 %, 50/60 Hz		
Temperature Range	+ 5 to + 50 °C	+ 5 to + 50 °C		
Interfaces	Serial interface RS485, setup and diagnosis interface RS232, fault contact Optional: analog input for tolerance (lump/neckdown) or alternatively industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet)			

* Specifications of LUMP 2010 T for transparent materials are identical

** For lump detection of diameters from 0.1 to 0.5 mm, please refer to our catalog for optical fiber measurement.

Technical data LUMP 2000 XY

	LUMP 2010 XY	LUMP 2025 XY		
Product Diameter**	0.5 - 10 mm	0.5 - 25 mm		
Min. Fault Length	0.5 mm	0.5 mm		
Speed Range	1 to 3,000 m/min	1 to 3,000 m/min		
Dimension	140 x 140 x 54 mm	260 x 240 x 70 mm		
Power Supply	100 - 240 V AC ± 10 %, 50/60 Hz	100 - 240 V AC ± 10 %, 50/60 Hz		
Temperature Range	+ 5 to + 50 °C	+ 5 to + 50 °C		
Interfaces	Serial interface RS485, setup and diagnosis interface RS232, fault contact Optional: analog input for tolerance (lump/neckdown) or alternatively industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet)			

Technical data is subject to change

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