• **self-learning / -adjusting (Machine Learning)**
• **complete 100%-inspection / protocol**
• **compact and easy installation**

!

Founded in 2000, *opdi-tex* acts as competent and innovative technology partner for the industry in the field of intelligent image processing. We are specialized on integrated machine vision and develop customized camera solutions that are optimally matched to your requirements.

opdi-tex GmbH

The structure control is carried out directly in the weaving zone of your loom. This will detect an error where it originates; we check the 5 mm before the textile exists and the 10 mm after production. By capturing multiple images

in one weft at multiple angles, errors are simultaneously found that can only be found with great effort in the fabric screening in the finished fabric. Thus, a detection of contamination or weaving errors without thread breakage is possible; and that before material, time and energy are wasted. Easy, fast, reliable, optical, *opdi-tex!*

Capturing of:

✓ **warp streaks**

✓ **weft cracks**

✓ **reediness**

✓ **broken picks**

✓ **smashes and so on**

✓ **optional pattern control with AI**

We support our customers in a variety of automation tasks: from optical quality control, product tracking in flow production, measuring, inspection of products and stereo vision up to methods to increase productivity.

As individual ideal solutions for you, we completely produce all applications cost-effectively with TÜV Süd certified quality management according to ISO 9001:2015 in the vicinity of Munich: from the opto-electronic sensor to programmable logic and SoC-based hardware up to evaluation and user interface.

We teach machines to learn, spot and understand!

More than 2000 of our systems are used successfully in different industries worldwide and are often applied under the name of our customers in the production of:

- food & sweets
- automobiles
- paper and foil printing
- packaging
- pharmaceuticals
- woven textiles

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OnLoom-Inspection

Intelligent
Image Processing
System Solutions

for **Textile Industry**

OnLoom-Inspection
by *opdi-tex*

Textile Applications

High machine speeds with increasing demands on quality and through-put. This requires in addition to the plant control and monitoring of the starting material a timely and reliable control of the product in production. The inspection directly at the fabric appearance in the loom results in higher efficiencies, lower waste, shorter reaction times and new possibilities.

Weaving looms

Knitting looms

Jacquard machines

With Machine Learning (ML) and Artificial Intelligence (AI), completely new opportunities arise for inspecting of even complex patterns. The effort to set up such a system for the operator is reduced at the same time. Programming of image processing systems will be exchanged by automatic learning.
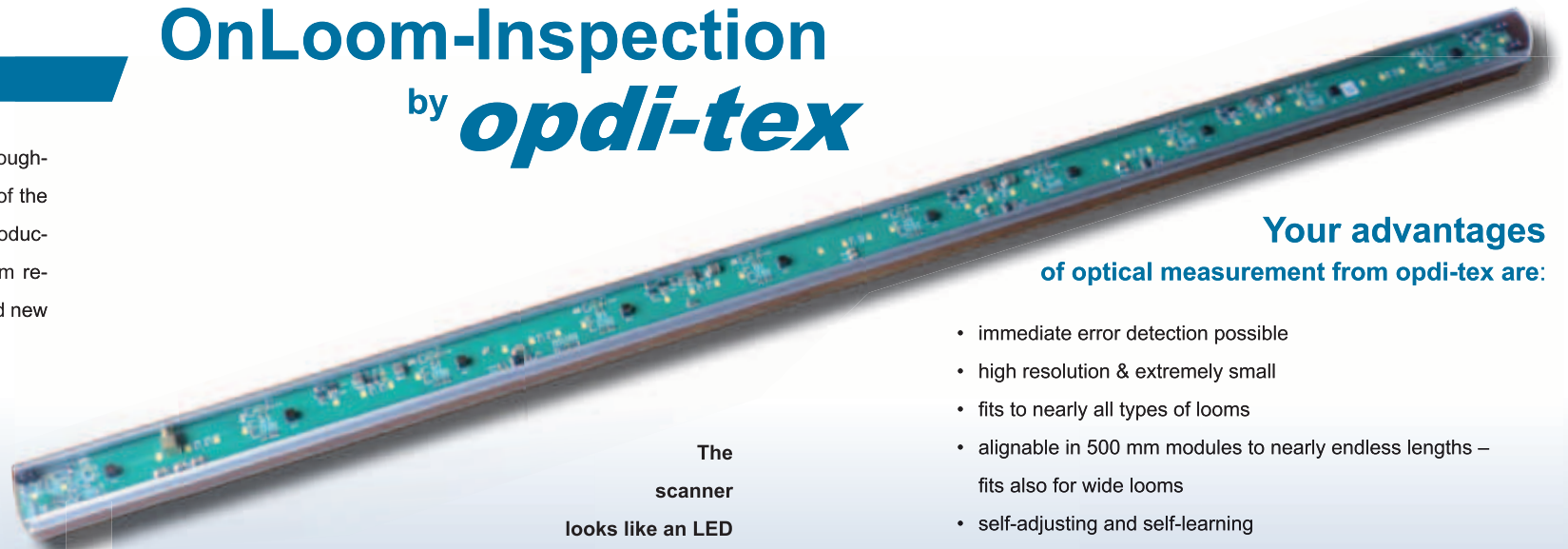
Materials:

Suitable for cotton, synthetic fiber, carbon and glass fiber, also ribbons made of these materials

Speed: up to 50 cm / min

Thread color: arbitrary, also mixed

The scanner looks like an LED strip and is just as easy to install. It contains very small cameras lined up with light sources in a 5 cm grid – and delivers high resolution images with 100 Pixels / mm². The data from the camera is then processed in hardware based on high integrated systems on a chip with artificial intelligence methods. This combination works together to control the looms and can lead to completely new emergences.

Technical Data

Mode of operation: **Micro Camera Stripe**

- optically aligned area camera sensors, contactless

Working width:	500 mm each, alignable and scalable up to 15 meters
Working distance:	200 mm
Dimensions:	ca. 500 x 20 x 20 mm, 200 g
Power supply:	24 V
Type of protection:	IP54
Interface:	1 single coax cable / 4 mm containing all signals

Your advantages
of optical measurement from opdi-tex are:

- immediate error detection possible
- high resolution & extremely small
- fits to nearly all types of looms
- alignable in 500 mm modules to nearly endless lengths – fits also for wide looms
- self-adjusting and self-learning
- integrated lighting, also as operator support
- simultaneous viewing of areas in front of and behind weaving zone
- completely new control options

Quality Control & Quality Assurance

Output:
- adjustable result information, with an external module also a programmable digital signal
- direct control connection and logging
- browser access for easy operation, easy integration into customer system
- remote maintenance with goods view!

The result can go directly to a PLC or other controller. The extremely simple setup and high reliability allow it to be used as a measuring device for a closed-loop and also for 100%-logging to increase the value of the final product.

For more information give us a call or visit

www.fadenkontrolle.de