

PXL

PROFILE SENSOR PXL FOR WIRES, MONO- AND MULTIFILAMENT

Ultra-fast detection of short-term surface faults and dimensional irregularities for continuous monitoring of round and flat targets.

Advanced miniaturised optoelectronic components combined with fast analogue signal processing offer a new dimension in surface fault visualisation. Even at line speeds of 1000 m/min, the PXL sensor allows accurate measurement and characterisation of micrometric short-term defects in real time. Together with the SENSYSYSTEM controller, it provides a unique tool for quality control in production and in

laboratory. Industrial on-line monitoring applied to enamelling, drawing, coating, extrusion, jacketing and colouring processes. Precision detection and characterisation of lumps, neck-downs, blisters, bubbles, slubs, flaws, scratches, coating dropouts and contusions. Examples of targets are: round and flat magnet wires, extruded wires and cables, multistrand litz wires, technical monofilaments, multifilament and yarns.

FEATURES

- Optical measurement in two planes
- Analogue output signals
- Immune to stray light
- Continuous IR-LED light beams
- Continuous real-time monitoring
- Compact and rugged construction
- 100 kHz ultra fast response
- Integrated signal pre-processing
- Precision roller bearing guides
- Micrometric resolution
- Reliable and user-friendly
- Unsensitive to filament vibration

Typology: dual axis
Range: 0.1 mm to 5 mm

The PXL Profile Sensor is used in both
Sensystem and **Sensoptic Vision**



DETECTION SPECIFICATIONS

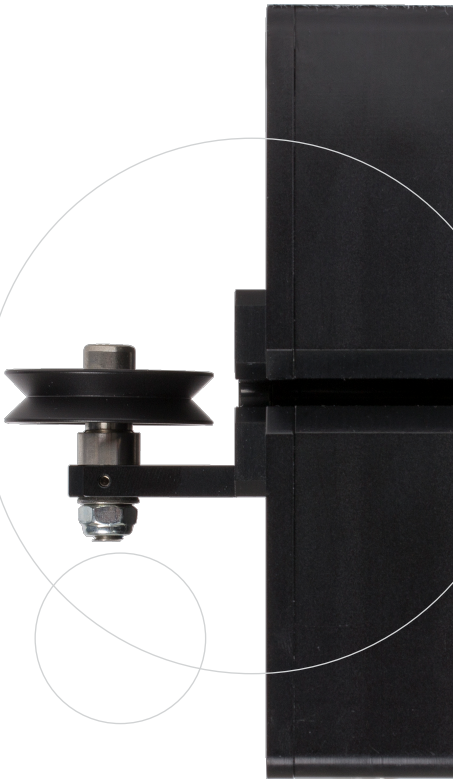
Target dimensions:	GA: 0.1 mm to 2.5 mm VL: 2 mm to 5 mm (other ranges available upon request)
Measuring slit apertures:	GA: 10 mm x 0.25 mm VL: 14 mm x 0.25 mm
Sensitivity at 1000 m/min	
For a fault length of 0.25 mm:	GA: minimum fault height change of 8 µm VL: minimum fault height change of 14 µm

ELECTRONICAL SPECIFICATIONS

Continuous total light signal range (DC):	0 to 10 V
DC-signal set value, bandwidth:	GA: 7 ± 0.25 V, DC to 100 kHz VL: 8 ± 0.25 V, DC to 50 kHz
Lump and neckdown output signals:	0 to 10 V
Supply Voltage, power consumption:	18 to 36 V DC, 5 W

MECHANICAL SPECIFICATIONS

Housing dimensions (without wire guides):	160 x 140 x 40 mm ³
Wire-guides:	precision bearing pulleys
Housing and wire-guides material:	black anodised aluminium
Net weight:	1500 g



Specifications are subject to change without notice.