



DUAL PROFILE SENSOR PSD 100 FOR WIRES

APPLICATIONS

Ultra-fast inspection of surface faults and diameter irregularities for continuous monitoring of wires in two planes. Industrial quality control applied to drawing, coating, extrusion, jacketing and colouring processes running at high line speeds. Precision detection of lumps, neck-downs, blisters, flaws, scratches, coating dropouts, contusions and surface roughness.

FEATURES AND BENEFITS

- optical measurement in two planes
- continuous IR-LED light beams
- 100 kHz ultra fast response
- micrometric resolution
- continuous real time monitoring
- analogue output signals
- integrated signal processing
- compact and rugged construction
- precision roller bearing guides
- build-in air insert for dust protection
- reliable and user-friendly



INNOVATIVE CONCEPT

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 Profile Sensor allows accurate measurement and characterisation of micrometric defects in real time. Thanks to its unique build-in compressed air insert, the measurements are insensitive to dust and small debris from the manufacturing process.



DETECTION SPECIFICATIONS

Diameter measuring ranges: 0.10 mm to 0.40 mm
(other ranges available upon request)

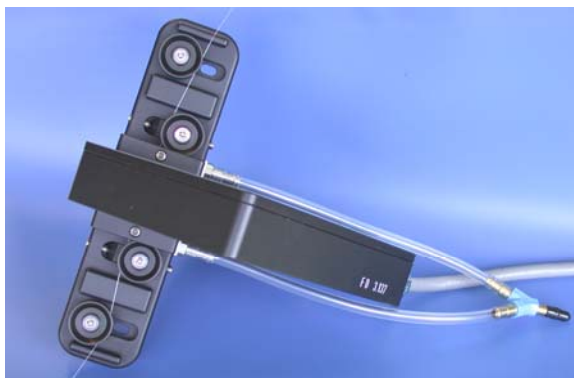
Active measuring zone: 1 mm x 1 mm square

Sensitivity at 1000 m/min:

For a fault length of 0.10 mm: minimum fault height change of 6 μm
For a fault length of 0.25 mm: minimum fault height change of 3 μm

ELECTRONICAL SPECIFICATIONS

DC output signals, bandwidth: 0 to 10 V , DC to 100 kHz
AC output signals, bandwidth: ± 10 V , 2 Hz to 100 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): 115 x 115 x 25 mm³
Roller wire-guides: 4 high-speed precision bearings
Dust protection: build-in compressed air insert
Housing and wire-guides material: black anodised aluminium
Net weight: 700 g