



PROFILE SENSOR PSD 200-FO FOR OPTICAL FIBERS

APPLICATIONS

Ultra fast inspection of surface faults and diameter irregularities for on-line monitoring of optical fibers in two planes. Industrial quality control applied to fiber drawing, coating and colouring processes running at high line speeds. Precision detection and characterisation of lumps, neckdowns, fiber and coating roundness, blisters, coating dropouts and discontinuities.

FEATURES AND BENEFITS

- dual-plane optical measurement
- continuous infrared LED light beams
- ultra fast detection
- micrometric resolution
- continuous real time monitoring
- analogue output signals
- integrated signal processing
- compact and rugged construction
- optional roller bearing guides
- reliable and user-friendly



INNOVATIVE CONCEPT

Advanced miniaturised optoelectronic components combined with fast analogue signal processing offer a new dimension in diameter fault detection and visualisation. Even at production line speeds of 2500 m/min, the Profile Sensor PSD 200-FO allows accurate measurement and characterisation of micrometric defects in real time.

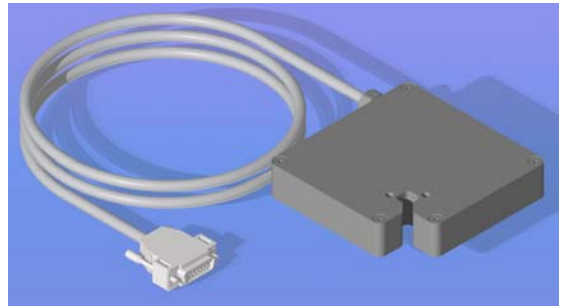
DETECTION SPECIFICATIONS

Diameter measuring range:	0.05 mm to 0.50 mm
Measuring area:	1.2 mm x 1.2 mm square
Detection beam aperture:	0.25 x 2.00 mm ² (0.25 in fiber direction)
<u>Sensitivity at 2000 m/min:</u>	
For a fault length of 125 μm:	4 μm minimum diameter change
For a fault length of 250 μm:	2 μm minimum diameter change

ELECTRICAL SPECIFICATIONS

DC output signals, bandwidth:	0 to +10 V , DC to 200 kHz
AC output signals, bandwidth:	± 10 V , 2 Hz to 200 kHz
Lump output signals:	0 to +10 V
Neck-down output signals:	0 to – 10 V

Supply voltage:	18 to 36 V DC
Power consumption:	5 W
Connecting cable:	power supply and signal cable, 2 m
Connector type:	D-SUB 15 pin



Optional:

Peak detection for lumps (sum x & y):	0 to +10 V
Peak detection for neck-downs (sum x & y):	0 to +10 V

MECHANICAL SPECIFICATIONS

Housing dimensions (without guides):	115 x 115 x 25 mm ³
Housing material:	black anodized aluminium
Insertion aperture width:	6 mm
Net weight:	600 g