

# SQMF Surface Defect Detector

## SPECIFICATIONS

The **SQMF** is designed for **high-speed** surface defect detection and characterization of fine tubes, cables and wires.

Its measurement principle is based on light reflection analysis.

### Information provided for each detected defect:

- I/O signals (alarm, speed,...)
- 2D image of the defect (flatten view)
- Localisation of the defect (length signal is mandatory)
- Defect dimensions (length, width and surface)

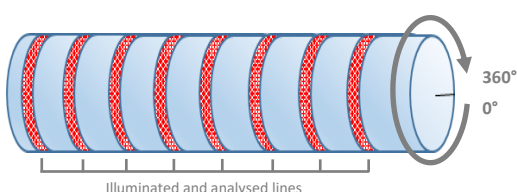


PRODUCT		SQMF-H		SQMF-L	
Diameter range					
		Min diameter	Max diameter	Min diameter	Max diameter
Material / surface finishing	High reflectivity materials (Cu, Ag, Au, Al...) with mirror surface finishing	15 μm	1000 μm	50 μm	2000μm
	Other materials and/or degraded surfaces *1	>15 μm	<1000 μm	>50 μm	<=2000μm
Performances					
Measurement window	Central disk	2.4 mm diameter			
Measurement	Measurement rate	200 000 images/sec			
	Circumferential resolution	Depends on wire diameter = $\pi \times D / 128$			
	Linear pitch	Depends on line speed = speed / 200 000			
	Linear resolution	Min size defect detection (length) = 18 μm			
Communications					
USB	Virtual Com port	USB 2.0			
Digital I/O - Sub-D (15 pins)	Digital output	6 (user configurable)			
	Digital input	4 (user configurable)			
Environmental & general data					
Temperature	Ambient T°	10 - 40°C			
	Max internal T° *2	55°C			
	Storage T°	0 - 60°C			
Light source	Type	Laser classe 1M			
Power	Power supply	24 Vcc 48 W mini			
Dimensions	Dimensions (LxWxH)	335 x 65 x 214 mm			
	Weight	3.1 kg			

### Remarks:

\*1 significant disparities depending on the material and surface finishing. Diameter range must be determined through trials carry out by CERSA MCI on samples.

\*2 provide air flow of 5 to 20 l/min to clean the optics if necessary



### SQM view (2D flatten image)

