

Strain Mapper Specification

Target Surface Finish	No surface preparation Operates on most dry surfaces
Target Surface Temperature	Operates on hot objects up to 1000°C.
Target Motion	Static strain and non-destructive examination
Standard Operating Temperature	5°C to 35°C
Standard Operating Humidity	20 -90 % Relative Humidity
Frame Rate	30 frames per second
System Control	All functions controlled from PC Screen
Computer Image Process Time	Fringe monitoring is realtime Offline image analysis <5s
Standard image area	f150mm typically (rectangular option available on request)
Image Resolution	640 x 480 pixels (1M pixels optional)
Target Range	0.5m – 3.0m
Sensitivity Range in microstrain (m μ e)	Variable from 10 μ e/fringe up to 200 μ e/ fringe
Strain Resolution in microstrain (μ e)	Typically 10% of sensitivity range (i.e. 1 -20 μ e)
Accuracy of measurement	Typically 5% uncertainty
Calibration	A range of calibrating standards can be supplied to order, some traceable to National Standards
Laser Wavelength	532nm (green)
Instrument Size (L,H,W)	230mm x 260mm x 800mm
Voltage Requirements	240Vac (or 110Vac)
Power Consumption	400 Watts
Laser Safety Classification	Class 2M system containing a Class 3b laser. Conforms to BSEN 60825-1:2007
Video Output	S-VHS
Tripod Mounts	M6, ¼ UNC
Service Requirements	240/110Vac, no additional cooling required.
Accessories	Remote LCD monitor Digital video storage Underwater housing Pulsed laser for transient or moving objects High temperature filters Remote control for hazardous conditions Close-up and telephoto imaging systems Underwater housing