

# Centurion® TK50 & WinCem®

## Infrared Kiln Shell Scanning System

### PERFORMANCE

Scanning Rate	30Hz
Scanning Field of View	120°
Linear Samples per Scan	2048
Aperture	25mm
Focus	1m to Infinity
Temperature Range	60-700°C
Filter	Atmospheric
Spectral Range	3.3µm-4.2µm
<b>Spatial Resolution:</b>	
Spot Detection (50% modulation)	<1 mrad
Temperature Measurement (90% modulation)	<2 mrad
NETD at 100°C	<1.6°C
Thermal Sensitivity	± 1.6°C at 100°C
Accuracy	± 4°C at 100-250°C <1% at 250-700°C
Repeatability: Short term	<1°C
Long term	± 5°C (One calibration per year)
Scanline Stability	± 0.1°
Detector Type	Mercury Cadmium Telluride
Micro Blackbodies: Ref. 1	Internal Low Temp
Ref. 2	Internal High Temp (250°C)

### SIGNAL PROCESSING

Digitisation	PosiTrak® Geometric Linearisation
Electronic Processing	22 bits per sample

### PC INTERFACING SOFTWARE PC/COMPUTER

Windows XP or later ✓

### EMBEDDED SOFTWARE

Real time Spot, Area & Regional Area measurement with Alarm outputs, 2D Image Map, 3D Visualisation & Rotational View, 3D Relief Map, Alarm Processing, Temperature Maps, Spot Area Processing, Worst Case History, Historical Playback/VCR, Data/Image Subtraction, Simultaneous Line Display/Measurement on Live & Recalled Data, Temperature vs Time Trending with Trend on Alarm, Multiple temperature & zone alarms with hardware outputs, Event Log Manager, Multiple User Configurations & Layout Manager, Profile/Envelope, Optional Refractory Manager, Optional Tyre Slip Software & Alarms, On-line Diagnostics & Interfacing options, Operator/Supervisor protection, Client-Server data structure for multiple viewers & long term reliability & flexibility

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### TK50 & POWER UNIT ENVIRONMENTAL DETAILS

Operating Temperature Range (standard)	-20°C to +50°C	BS EN 60068-2-1/2
Operating Temperature Range (optional)	-40°C to +70°C	BS EN 60068-2-1/2
Enclosure Classification	IP66, BS EN 60529	
Operating Ambient Relative Humidity (non condensing)	100% RH at + 40°C	
Size (W x H x D) mm	200 x 180 x 70	
Weight	3.5kg	
Integral Power Supply	100-240VAC 50-60Hz	
Power Consumption	24 Watts	

### TK50 SCANNER VIBRATION & SHOCK DETAILS

Vibration - Sine	BS EN 60068-2-6
2Hz - 9Hz, 7mm; 9Hz - 200Hz, 20m/s <sup>2</sup>	
Random Vibration	ETSI EN 300019-2-3
5 to 10 Hz, +12dB/octave, 10 to 50Hz 0.04m <sup>2</sup> /s <sup>3</sup> , 50 to 100Hz -12dB/octave	
Shock - Half sine 50gn pk	BS EN 60068-2-27

### STANDARD SYSTEM

- Air Purge
- Heavy Duty Blower Fan
- Fan Filter Pack
- including Flow Indicator
- Mounting Cradle Assembly
- Power & Communications Unit
- PC Interface Unit
- Kiln Synchronisation Switch
- Heavy Duty ABS Shipping Case
- Desktop PC (with LCD screen, keyboard and mouse)

### OPTIONAL ACCESSORIES

- Tyre Slip Software
- WinBrix Refractory Expert
- Remote I/O Module
- OPC Interfacing Software
- Client-Server Network Software
- Alignment Telescope
- Rack-mounted PC

### COMMUNICATIONS

Multimode fibre optic cable kit - 62.5/125µm with ST terminations

### WARRANTY

24 Months Standard

