

NEW

DATA ACQUISITION SYSTEM

FALCON™ IR-DAS

DF1100

SOLTEC®

Advanced, NEW Concept in Measuring Instruments - Now Simultaneously Measure and Record Non-Contact Temperature Data with Analog Phenomena Including Stress, Strain and Vibration

DF100 Falcon™ IR-DAS is a measuring revelation created by Fusion of NEC Avio world famous "Infrared Thermal Imaging Camera" and "Analog Measuring" core competence technologies.



Non-Contact Temperature Measurement

Infrared thermal images are recorded by Infrared Thermal Imaging Camera Models TS9100, TH9100 MR/WR via Ethernet connection. A brilliant TFT LCD color monitor displays trend of max/min and average temperature. Selected Display areas can be set to alarm on preset temperature limits.

Multi-Channel Measurement

Up to 16 isolated, independent data channels simultaneously display connected sensor data.

Direct Connection of Sensors

A wide range of plug-in Signal Conditioning Amplifiers accept direct input from Voltage, Current, Strain, Temperature, Pressure, F/V and Charge Sensors. Amplifiers are interchangeable with existing TA220-1000, TA220-2000 and DL Series Data Acquisition Recorders.

Customized Monitor Screen

Easily configure display to simultaneously show desired combinations of Digital Data, YT & XY Graphs, and Infrared Imaging Data.

Expand Arithmetic and FFT Features

Perform Arithmetic operations between Channels including Basic Math, Trig, Calculus, and Moving Average. FFT Analysis includes Power, Linear, RMS and Power Density Spectrums.

Note: Plug-in Signal Conditioning Amplifier Modules, Model TS9100 Thermal Imaging Camera and Sensors are optionally selected based on measurement application. Contact SOLTEC Corporation for details.



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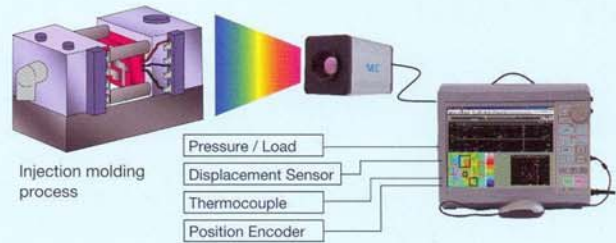
Specifications*

Compatible IR Cameras	TS9100, TH9100MR/WR
IR Cameras per DF1100 Mainframe	One (1) IR Camera Max
Simultaneous Recording Function	Simultaneously Measure, Record and Display Infrared Image Data, Temperature Trend and Analog Signals
Infrared Image Recording Speed	10 frames/sec (infrared data recording only) 5 frames/sec (Multi-Recorder Mode with 1µs Memory Recording and 40µs HDD recording)
Analog Input Recording Channels	16 Channels Max + Event Unit
Analog Input Recording Speed	100µs to 999ms, 1s to 100s
Display Format	Color Display of Analog Input and Infrared Trend Data
FFT Analysis Functions	Spectrums: Power, Linear, RMS and Power Density
FFT Analysis Sampling	Real time: 1024 samples; 2 nd Analysis Selected Sampling: 256, 512, 1024, 2048, 4096, 8192, 16384 32768 & 65536 samples.
Arithmetic Operations	Four (4) arithmetic operations. Calculation between channels, power, square root, absolute value, common logarithm, index, RMS, Trigonometric, 1 st Order Differential/Integral, 2 nd Order Differential/Integral, Moving Average (replay only) and User Defined Equations.
Operation Modes	Pen Recorder, Memory Recorder, HDD Recorder and Multi-Recorder (Memory + HDD Recorder) Modes
Built-in Thermal Printer Chart Speeds	100mm/s to 1mm/min
Analog Signal Sampling Speed	Selectable. 1µs (1 MS/s) maximum
Recording Channels	16 Channels Max + Event Unit (with all Analog Channel Amplifiers and Event Unit installed. Infrared Image Temperature Trend Waveform is not available).
Input Amplifiers	Plug-in type. Uses standard AP Amplifiers interchangeable with TA220-1000, TA220-2000 and DL Series Data Acquisition Recorders
Internal Memory	Internal HD (160GB). Recording times: Image Data Only: (10 frames/sec): Approx. 24 hours. Image (5 frames/sec) + 16 Channel Data Channels: Approx. 48 hours.
Display	12.1 Inch TFT, Color LCD. Effective display area: 245.76mm x 184.32mm (1024 x 768 pixels)
Operation Environment	Temperature: 5 to 40°C. Humidity: 35 to 80% non-condensing.
Power Source	90 to 264VAC, 50/60Hz
Power Consumption	Approx. 100VA with eight (8) model TA220-AP11-101 Plug-in Voltage Amplifiers installed.
Dimensions	Approx. W: 369.5 x H: 164.5 x D: 301mm excluding protrusions)
Weight	8.0kg (Mainframe only). Approx. 8.7kg (Mainframe + four (4) Dual Channel Amps)

*Specifications are subject to change without notice.

Applications

Die Casting— Improve Quality Control by Simultaneously Monitoring and Recording Die Cast Process parameters such as Temperature Distribution, Pressure and Displacement.



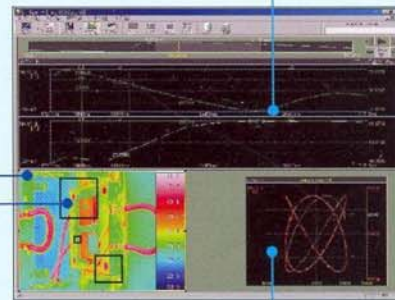
Display

Color Monitor displays data in mixed formats of choice

- Waveforms (Y vs. Time)
- Digital Values
- X vs. Y Graphs

Graph Display

Graphic Display of Analog Waveforms and Thermal Image



Thermal Image

Max/Min/Avg Values of Areas Selected on the Thermal Image Display are presented graphically

X-Y graph

Pressure vs. Load
Displacement vs. Load
Temperature vs. Load

Other Measurement and Recording Applications

- Automatic Welding Machine - Voltage, Current and Temperature
- Film - Thickness and Temperature Distribution.
- Electric Cable and Tube Extrusion Machines - Temperatures and Pressures
- Food Industry - Kneading Machine Dough Temperature and Mixing Motor Torque



**CAUTION
FOR SAFETY**

Please carefully read "WARNING" & "CAUTION" in the Operation Manual provided with the product for proper operation before using the product.

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