

## Category 1 Thermography Certification Course 5 day workshop

Gain an internationally recognised qualification in a rapidly growing industry.

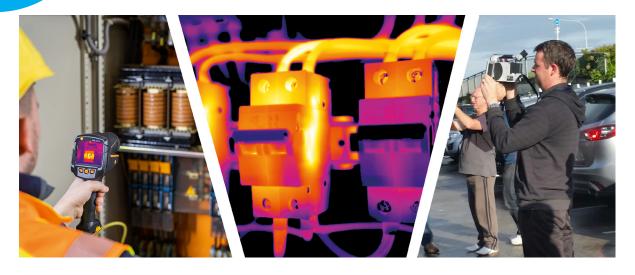
No matter what brand of camera you have, this course will teach you how to use your thermal imaging camera to it's full potential!

### August 2024 Course

# 19th - 23rd August 2024, Auckland & Christchurch

Presented by

### **Eurotec Ltd**



#### **Testimonials**

"The tutor helped me understand the theoretical and real world implementation of thermography. I learnt some real world examples and explanation and understood the theory behind thermography. I would be able to see the flow of energy."

Bruce Marshall, Feisst Electrical

"The course helped me understand the complex information of thermography and what can be achieved. I would be able to actually use the camera and apply the information to electrical."

Alice Wright

Cat

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To get the most out of the hands on workshops, if available please bring your camera with you. **Don't have a camera?** Eurotec can provide cameras for the duration of the course.

#### Category 1 Thermography Certification Course Registration Form

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<b>Note:</b> Our course tut managing the class o										oft t	eams	, wit	h Eu	rote	c qu	ıalifi	ed th	ıerm	ogra	hqr	e

Email form to: Tom Aldridge taldridge@eurotec.co.nz Payment or order number required on receipt of

Payment is required in advance. Course fee is non-refundable, but is transferrable to another course date.

registration)

#### 5 Day Category 1 Certification/Operator Course Outline



This course meets or exceeds the recommended training curriculum of ASNT-TC-1A for Category 1 Thermal/Infrared Certification as well as ISO 18436-7. The course is a good mixture of audio, visual, and kinetic presentation material.

The hands-on workshops ensure that the students leave the course with confidence in their ability to operate their IR equipment. Certification will be granted to students who successfully complete the written requirements. Class size is limited to give maximum interaction between instructor and students.

#### Introduction to Infrared Thermography and predictive maintenance

#### **Basic Thermal Physics**

Introduction to Temperature Matter, Energy, Temperature Temperature scales Introduction to Heat

#### **Basic Heat Transfer Theory**

Thermodynamics
Change of State
Specific Heat
Conduction, Convection, Radiation

#### **Electromagnetic Radiation**

The Electromagnetic Spectrum Infrared Explained Introduction to Planck's Curves

#### The Infrared Image

How an Infrared Image is Produced

#### Qualitative Thermography Operating Your Equipment

How Your Camera Works Detectors-Focal Plane Arrays (FPA) 3 Main Controls: Focus, Level, Span Getting a Good Image Workshop

#### **Infrared Radiation Physics**

The Stephan Boltzmann Law Wein's Law Planck's Law Emission, Reflection, Transmission Emissivity Temperature Measurement Workshop Emissivity Testing Workshop

#### **Imaging and Analysis Factors**

Inspection Techniques
Atmospheric Attenuation
Field of View
Instantaneous Field of View
Instantaneous Measurement Field of
View
IMFOV Workshop
Infrared Lenses
Infrared Windows

#### Applications (As pertinent to class)

Introduction to Applications
Reporting
Electrical Inspections
Mechanical Inspections
Process Inspections
Building Inspections
Flat Roof Inspections
Class Application Discussions
Workshop

#### Software

General Software Discussion

#### **Category 1 Examination**



Eurotec has been offering Thermography Certification Course since 2014. This course meets or exceeds the recommended training curriculum of ASNT-TC-1A for Category 1 Thermal/Infrared Certification as well as ISO 18436-7. Since our courses have commenced, almost 300 students have completed the courses with A+ grade and 90% pass rate.

Our course provides a comprehensive, hands-on introduction to thermal imaging and measurement systems for predictive maintenance and building integrity applications. No experience in thermography is necessary!

#### Through this course, you will be able to

- learn how to collect quality data, accurate temperature readings, and account for measurement effects such as distance and emissivity using infrared cameras.
- avoid costly mistakes- learn to distinguish between hot spots and reflections, direct vs. indirect readings and qualitative vs. quantitative thermography.
- develop the skills you need to take full potential of your thermal imaging camera & better serve your clients.

The team at Eurotec are highly qualified and experienced in thermography with all Electrical & Instrumentation team members being Category 1 qualified thermographers.

Since its establishment in 1986, Eurotec has been building an enviable reputation not only as an importer and marketer of a wide range of superior quality Controls, Instrumentation, Gas Detection, Humidification and Ice-making equipment for the HVAC, Refrigeration, Industrial Process, Electrical and Food industries, but also as a company whose people are committed to providing their clients with total quality service. This commitment sees the Eurotec Team working closely with clients as well as designers and specifiers, ensuring that the advice offered in terms of products and applications are in the best interests of our clients.

**Our Mission:** Through the Knowledge and Ability of our People and the Technology of our Products we deliver the best possible Solutions to our Customers.