

## DUOTHERM

Thermal Camera Monitoring System



## DuoTHERM

### Dual Camera Thermal Imaging System

DuoTHERM is a freely configurable thermal vision system. It comes with two FLIR Thermal Cameras to allow more flexibility and resolution.

DuoTHERM is ideal for quality control applications, monitoring of production parameters and any other application with the need to monitor temperatures. The built-in recipe manager allows DuoTHERM to be adapted to almost any application.

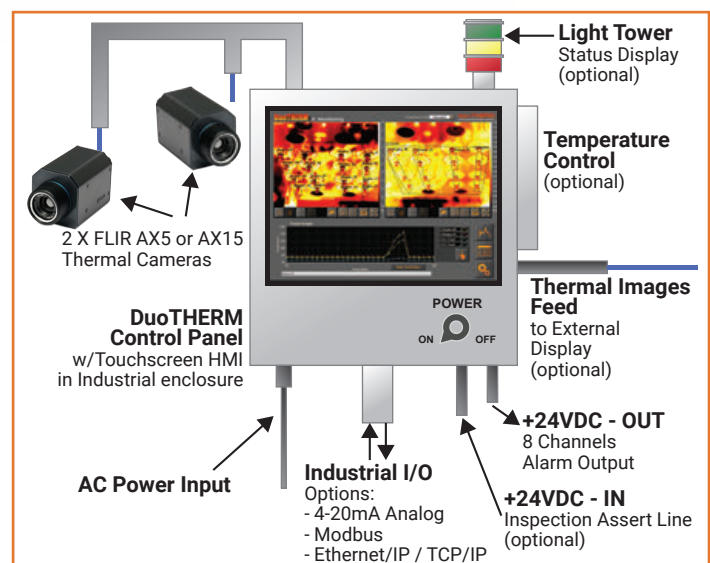
**Start improving your process today!**

### DuoTHERM – Feature Highlight

- ✓ Two Camera Thermal Imaging
- ✓ Recipe Manager with unlimited Inspection Recipes
- ✓ Intuitive User Interface with Touchscreen
- ✓ Data & Image Logging
- ✓ Temperature Trend Graph
- ✓ Industrial I/O & Communications Interface
- ✓ Ethernet
- ✓ NEMA4, NEMA4x (Wash down) available
- ✓ Ex-Proof (Class I/Div 2) available

### DuoTHERM – Example Applications

- ✓ Package Seal and Plastic Welding Inspection
- ✓ Food Processing & Cooking Temperatures
- ✓ Metal Quenching, Annealing, Welding
- ✓ Injection Mold & Part Monitoring
- ✓ Automotive Die Cast Monitoring
- ✓ Hot Glue Verification
- ✓ Drying Verification
- ✓ Plastic Film Temperature Distribution



# DUOTHERM

## Thermal Camera Monitoring System

### What is Included?

- ✓ Two FLIR Thermal Cameras
- ✓ Available Camera Resolution either 320 x 240 or 640 x 480 pixels
- ✓ DuoTHERM Controller, Wall-mount Enclosure, Panel PC with Touchscreen
- ✓ All necessary support electronics, power supply and cabling

### How can DuoTHERM interface to my equipment?

The system offers flexible interface options. This allows the user to interface existing equipment to access status information, pass/fail, system health and inspection data through various interfaces.

- ✓ 24VDC discrete I/O
- ✓ 4-20mA Current Loop Output
- ✓ Ethernet/IP and ModBUS TCP

### What is required for installation?

All that is required for the installation of DuoTHERM is standard 110VAC/15A power, one Ethernet cable to each camera, and the I/O connections. The cameras are powered over Ethernet (PoE)\*, which makes installation very convenient. No additional camera power supplies or cables are required.

\* Only applicable to FLIR A35/A65

### Does MoviTHERM help with commissioning?

Absolutely! In fact, we recommend hiring MoviTHERM for the commissioning and training phase of the system deployment. Nobody knows our systems better than us. We design and build them! Additionally, you gain access to thermography experts to assure that you achieve the best return on investment. We recommend allocating 1 to 2 days for the deployment of a single system.

### *"Implementing a Thermal Imaging System used to be daunting and risky task."*



MoviTHERM has made it its mission to greatly simplify this process.

We have taken more than a decade of our thermal imaging experience and boiled it down to an easy to use, user friendly solution – "DuoTHERM". All the complicated elements are taken care of in the background, hidden from the user. With DuoTHERM, we have eliminated risk and learning curve, so you can focus on what's important to your process from day one!

Markus Tarin, President & CEO

### Supported Cameras

Depending on the requirements of your application, any of the following FLIR® Thermal Cameras are supported:

	FLIR® A35	FLIR® A65	FLIR® A315	FLIR® A615	FLIR® A6601 / A6651
					
Resolution	320 x 256 pixels	640 x 512 pixels	320 x 240 pixels	640 x 480 pixels	640 x 512 pixels
Frame Rate	60 Hz	7.5 Hz / 30Hz	60Hz	50 Hz (100/200 Hz with windowing)	60 Hz 125 Hz @ full window
Object Temperature Range	-25°C to +135°C (-13 to 275°F) -40°C to +550°C (-40 to 1022°F)	-25°C to +135°C (-13 to 275°F) -40°C to +550°C (-40 to 1022°F)	-20 to +120°C (-4 to 248°F) 0 to +350°C (32 to 662°F)	-20 to +150°C +100 to +650°C +300 to +2000°C	-20°C to 350°C (-4°F to 662°F) Optional Up to 1,500°C (2,732°F) Up to 2,000°C (3,632°F)
Accuracy	±5°C (±9°F) or ±5%	±5°C (±9°F) or ±5%	±2°C or ±2% of reading	±2°C or ±2% of reading	±2°C or ±2% of reading
Ethernet, Communication	GigE Vision ver. 1.2 Client API GenICam compliant	GigE Vision ver. 1.2 Client API GenICam compliant	TCP/IP socket-based FLIR proprietary and GenICam protocol	TCP/IP socket-based FLIR proprietary and GenICam protocol	Gigabit Ethernet (GigE Vision 2.0)

\*\* High Temperature Options available for FLIR A315, please contact MoviTHERM for details