



Thermal Seal Inspection for Plastic Joining & Welding



Infrared and hot gas welding are widespread in the plastics industry as these joining methods have the advantage of a contactless heat supply. Monitoring and controlling the component temperatures significantly influence the adhesion quality. If temperatures are too high, the component could be damaged. Conversely, if the component temperature is too low, inadequate joining might occur.

MoviTherm TSI for Plastic Joining and Welding is a complete turnkey solution for in-line monitoring of joining and welding processes for thermoplastics. Leveraging infrared camera technology, TSI provides fast and reliable non-contact measurements to ensure proper temperatures are maintained across the entire component surface, resulting in high-quality adhesion without product damage.

Features:

- ✓ Works with multiple Thermal Imaging Cameras
- ✓ 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), Ex-Proof (Class 1/Div II) available

INFRARED CAMERA ADVANTAGE

Non-contact qualitative and quantitative measurement.

- Visualize temperature distributions across the entire component surface.
- Accurate temperature measurements from any location in the field of view.
- Flexible visual and statistical thermal documentation.

PEACE OF MIND

Safeguard your brand promise with 24/7 intelligence and reporting.

- Ensure consumer confidence and satisfaction.
- Prevent costly recalls and returns.
- Performance awareness with statistical data output and reporting.

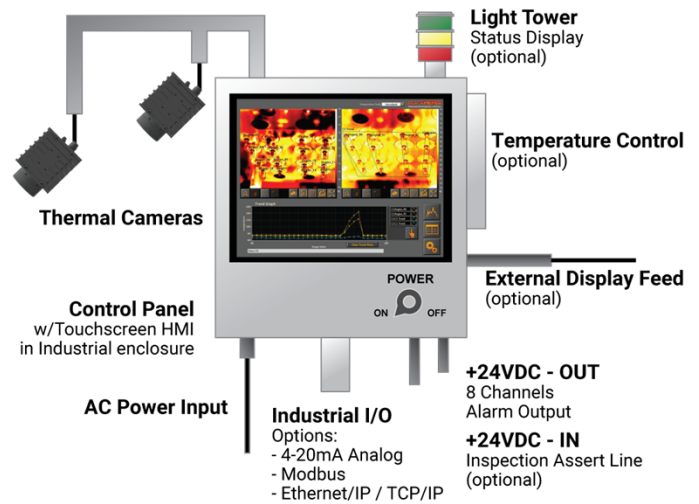
EASY INTEGRATION

Speaks the most common industrial languages for easy integration.

- Standard Ethernet/IP interface.
- Ready for digitalization (IIoT, Cloud, Industry 4.0).
- Built in digital I/O for alerting and product ejection.
- Optional FDA CFR 21 Part 11

What is Included?

- ✓ Thermal Cameras
- ✓ Multiple Infrared Camera Resolutions available from 320 x 240 to 640 x 512 pixels
- ✓ Controller, Wall-mount Enclosure, Panel PC with Touchscreen
- ✓ All necessary support electronics, power supply, and cabling
- ✓ Application software



What is required for my installation?

All that is required for the installation 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.

How can I interface with my equipment?

The system offers flexible interface options. This allows the user to interface with 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

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 we. We design and build them! Additionally, you gain access to thermography experts to assure that you achieve the best return on investment.

Supported Infrared Cameras

Contact MoviTHERM for additional camera compatibility

	Teledyne FLIR® A50/A70	Teledyne FLIR® A400/A500/A700	Automation Technology IRS336/IRS640
			
Resolution	464 x 348 / 640 x 480	160 x 120 / 464 x 348 / 640 x 480	336 x 256 / 640 x 512
Frame Rate	30 Hz	30 Hz	9 Hz or 60 Hz
Object Temperature Range	A50: -20°C to 175°C (-4°F to 347°F) 175°C to 1000°C (347°F to 1832°F) A70: -20°C to 175°C (-4°F to 347°F) -20°C to 250°C (-4°F to 482°F) 175°C to 1000°C (347°F to 1832°F)	A400/500: -20 to 120°C (-4 to 248°F) 0 to 650°C (32 to 1202°F) 300 to 1500°C (572 to 2732°F) A700: -20 to 120°C (-4 to 248°F) 0 to 650°C (32 to 1202°F) 300 to 2000°C (572 to 3632°F)	-25 to 135°C (-13 to 275°F) -40 to 550°C (-40 to 1022°F) *Optional high-temp 200 to 1200°C (392 to 2192°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading	±2°C (±3.6°F) or ±2% of reading	±2°C (±3.6°F) or ±2% of reading
Ethernet Communication	GigE Vision, GenICam (SFNC 2.4)	GigE Vision, GenICam (SFNC 2.4)	GigE Vision, GenICam

*Specifications are subject to change without notice. 8/2022

*Exact system components and IR camera model are site dependent.