Guide to Thermal Scanners

As the requirement for temperature readings is becoming commonplace for all businesses, the need for accuracy and quick temperature screening is paramount. There are a variety of thermal scanning products available for businesses to consider.

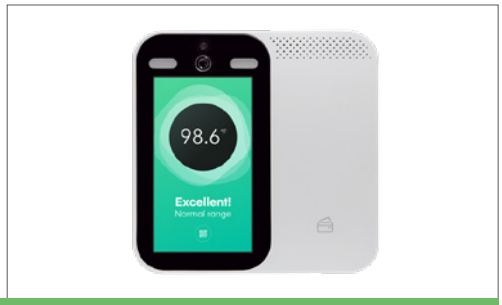
For any type of screening device, manufacturer quality and reputation is critical, especially with respect to sensor accuracy. It's important to understand who manufactures the device and whether it adheres to data protection and security regulations.

What Can Impact Accuracy

- **Sensor Accuracy.** Acceptable medical accuracy is ~0.3°F and most temperature check products range between 0.5°F and 1.8°F.
- **System Accuracy.** The way the sensor is designed into the overall device is critical and can drastically reduce accuracy.
- **Environment Accuracy.** Infrared sensors take readings by sending infrared (IR) through the air and accuracy can be heavily impacted by anything the sensor can pick up, including ambient temperature and the overall environment. This is true for wide thermal imagers that deal with multiple people at once in a large area.
- **Machine Learning Software.** Smart software algorithms can use data from additional device sensors and artificial intelligence (AI) to improve device accuracy over time.
- **Time and Usage.** All thermal sensor solutions require regular replacement or calibration which has to be done in a lab due to expensive black body equipment. Sensor accuracy is reduced over time and with usage.

Considerations When Choosing a Device

With all of that in mind, it's important to select the right screening method. Below are the pros and cons of each of the three main types of screening devices.

	Temperature Gun	Wide Thermal Camera	Thermal Screen Kiosk
			
Major Pros	■ Hardware is affordable. Cost can range between $50 to $250, depending on accuracy.	■ High throughput. Able to quickly screen many people at once.	■ High accuracy due to individual screening. ■ Does not require attendant or staff monitoring. ■ Can integrate directly with access control.
Major Cons	■ Requires manual labor at each entrance to monitor and report. Each device requires a staff member which can be difficult and costly to scale. ■ Risks staff transmission from proximity to each other.	■ Accuracy is heavily impacted by environment; real accuracy of these devices is low due to ambient factors. ■ Tends to be expensive, ranging from $6,000 to $15,000.	■ Not great for high traffic locations.
Accuracy	■ Many non-FDA registered products available tend to be inaccurate, but even high-end temperature guns only accurately read within 0.5°F.	■ Many non-FDA registered products available tend to be inaccurate.	■ Accuracy can be very high (0.5°F), due to individual screening which lowers impact of environmental factors. Manufacturer quality and reputation is critical.
Ideal For	■ Places where the temperature screening process needs to move around (e.g. events). ■ Places less concerned about the cost of manual staffing and monitoring (e.g. security already does screens and checks).	■ Places with high traffic (e.g. airports, concert halls, metro stations).	■ Office environments ■ Retailers ■ Restaurants ■ Healthcare (for non-clinical use)

Why LivMote

Bring peace of mind to staff and visitors with contactless screening. LivMote is engineered and designed to deliver a fast, safe and reliable temperature screening and check-in experience that doesn't involve any touchpoints or another person.

- **Quality.** Built-in exclusive partnership with Foxconn, leveraging the best practices of one of the world's largest electronics manufacturers.
- **No Manual Monitoring.** IoT cloud-connected device removes need for manual monitoring and reporting.
- **High Accuracy.** Highly accurate due to individual screening and quality manufacturing. LivMote sources and works directly with leading thermal sensor companies to carefully refine product accuracy.
- **Automatic Adjustments.** LivMote also monitors the anonymous statistical distribution of temperature reads to automatically identify devices that need readjustment, calibration or replacement.
- **Private and Secure.** Purpose-built solution for modern workplaces requiring enterprise security; works with compliance policies including CCPA, GDPR and HIPAA.
- **Warranty.** LivMote provides a warranty for the duration of your software license and offers a free replacement or upgrade after 3 years.

Final product design and user interface are subject to change.