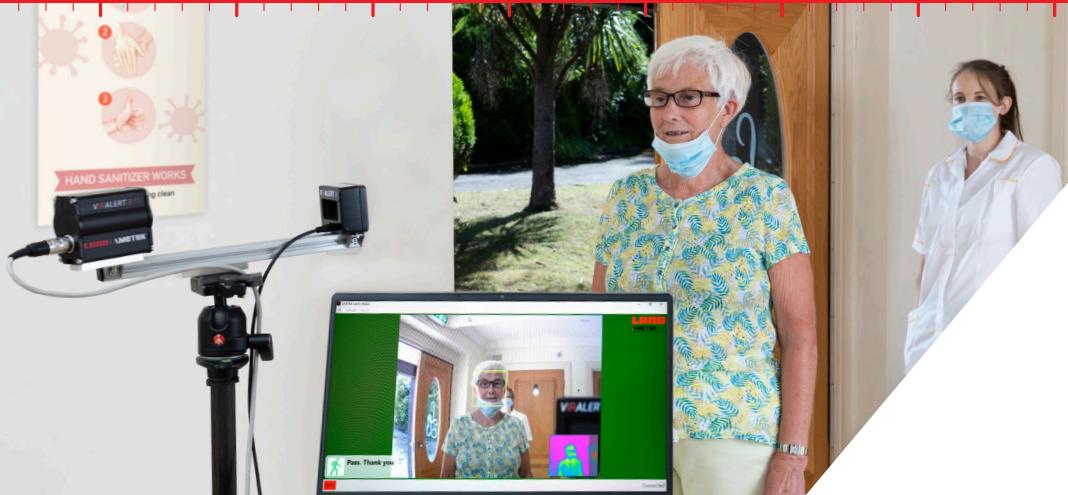


# TEMPERATURE SCREENING BEST PRACTICE E-BOOK



## READ ABOUT:

THE GOOD, THE BAD  
AND THE UGLY OF  
TEMPERATURE  
SCREENING

## FACT CHECK:

LEARN ABOUT  
THE SCIENCE  
BEHIND EFFECTIVE  
TEMPERATURE  
SCREENING



## BEST PRACTICE:

SEE TRAVEL, HEALTH,  
SPORTS AND  
EDUCATIONAL CASE  
STUDIES INSIDE



**INSIDE:**

- 03** DEVELOPING A THERMAL IMAGING SCREENING SYSTEM
- 04** KEEPING YOUR BUSINESS OPEN
- 06** ABOUT THE VIRALERT 3
- 08** THE TRUTH ABOUT TEMPERATURE SCREENING
- 10** POLE POSITION FOR TEMPERATURE SCREENING
- 12** STAYING SAFE AT A MEDICAL PRACTICE
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- 16** EASY TO SET UP, QUICK TO USE - LEARN MORE
- 18** COMMON QUESTIONS ABOUT THERMAL SCREENING

**VIRALERT 3**

SAFE | EASY | ACCURATE

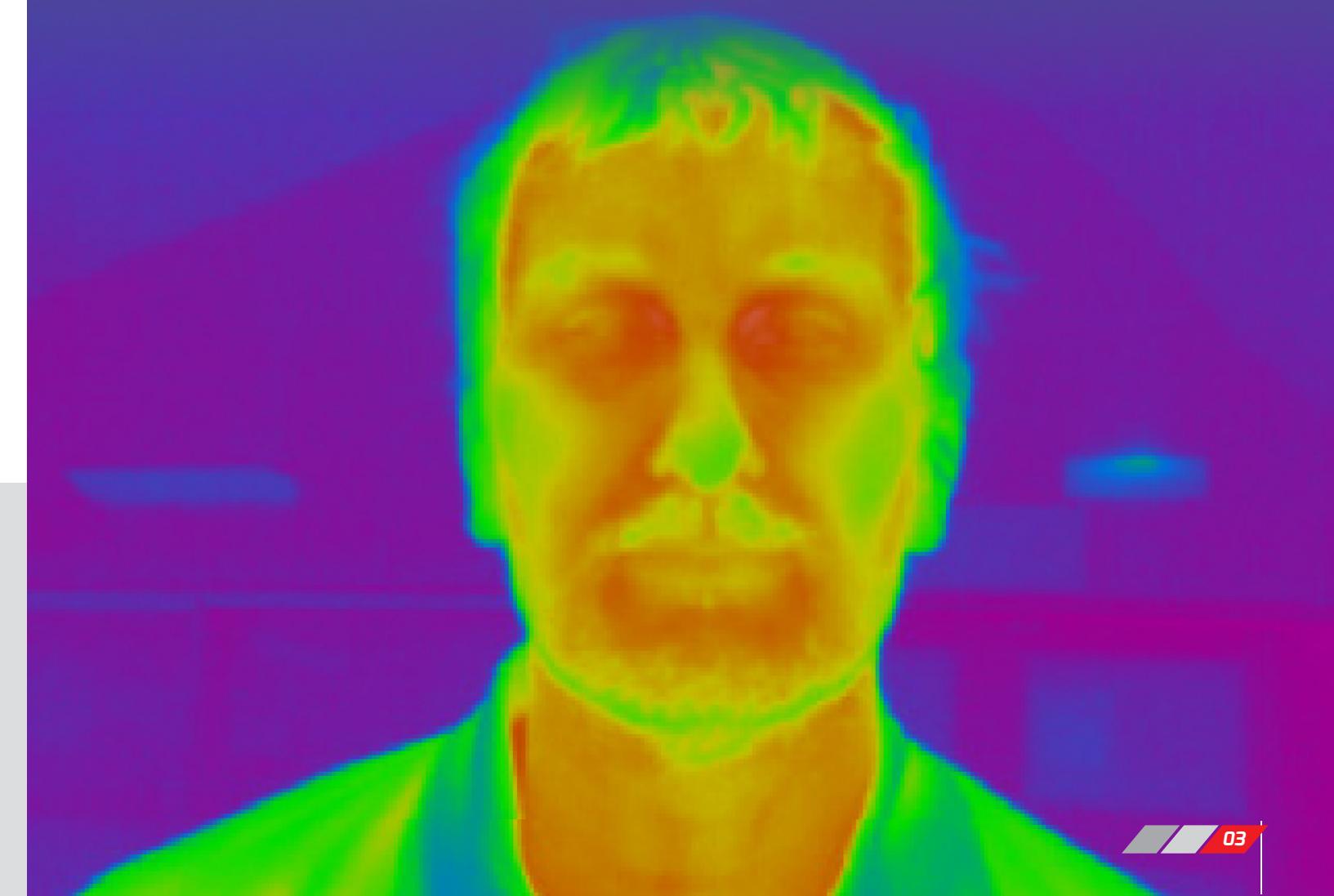
**EXPERTS IN HIGH ACCURACY,  
NON-CONTACT TEMPERATURE  
MEASUREMENT****AMETEK LAND, WHO?**

We are experts, after more than 70 years leading innovation in non-contact temperature measurement, we are trusted by the major global players in heavy industries including steel, glass, and oil and gas. They know, we know how to measure the temperature of their critical systems, accurately, and at a safe distance.

**WHY AMETEK LAND?**

We know how to overcome the major challenges of human temperature screening

- We have been developing Human Body Temperature Measurement equipment since 2003 and the original SARS epidemic. We patented 'in-scene' temperature calibration; pioneering the technology and techniques that have become the industry gold standard for accuracy.



# HOW TO MAKE YOUR FACILITIES MORE COVID-19 RESISTANT

## THERMAL SCREENING YOUR FRONTLINE DEFENCE AGAINST COVID-19 INFECTION

COVID-19 remains a major challenge for businesses reopening after lockdowns around the world.

Many businesses, following government guidance, use a range of measures designed to limit the spread of the virus, including social distancing, hand hygiene, and the wearing of face coverings.

These precautions will continue to be important but aren't always practical in many enclosed spaces and environments – such as offices,

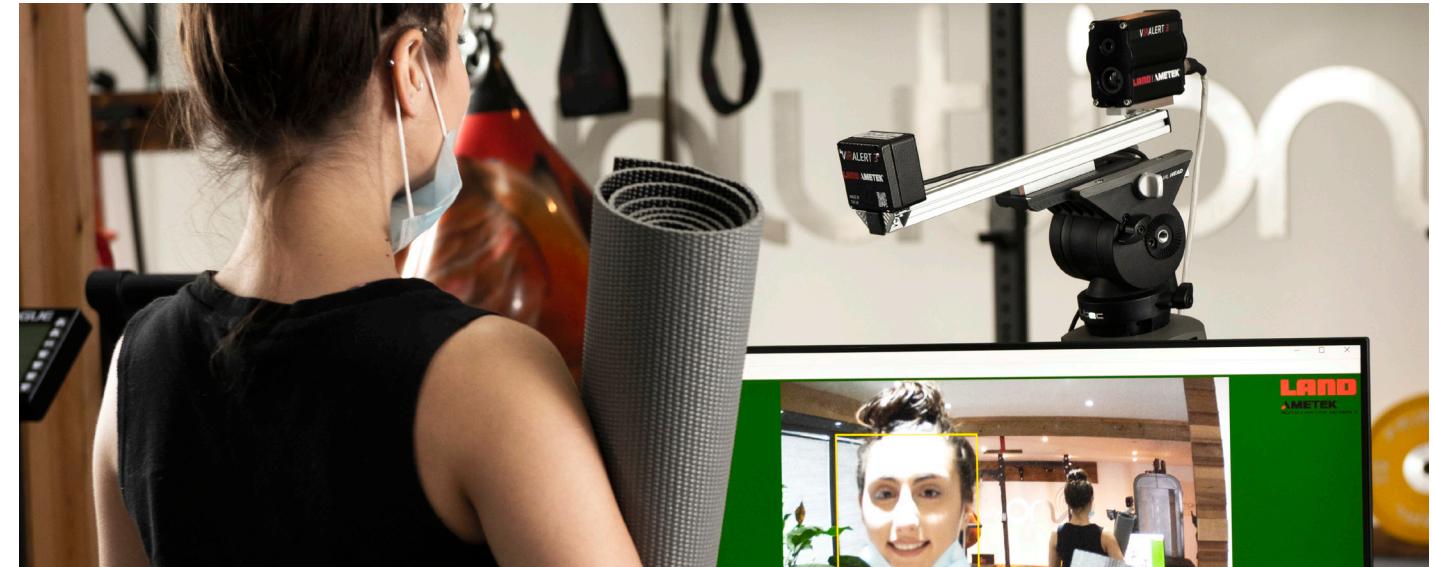
factories, shops, and leisure facilities – where the virus is more easily spread.

Finding additional measures to mitigate the spread of the virus amongst workers, customers, suppliers, and visitors to your premises will help increase the resilience of your business and maximise your ability to remain open.

The authorities in many regions recommend temperature screening in addition to the core countermeasures.

There are different methods of human body temperature screening, with varying levels of ease of use, accuracy, repeatability, and practicality.

If the screening equipment and process are implemented with a clear understanding of the limitations, as well as the benefits of the system, then it can be a powerful tool to deploy alongside other risk-reduction measures.



## VIRALERT IS IDEAL FOR USE IN:



### HEALTHCARE



### RETAIL & ENTERTAINMENT

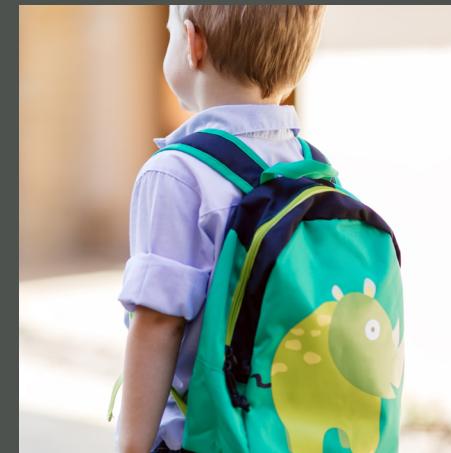


### OFFICES & MANUFACTURING

- MEDICAL & DENTAL PRACTICES
- NURSING HOMES
- HOSPITALS

- SHOPS & MALLS
- RESTAURANTS
- CINEMAS & BOWLING ALLEYS

- OFFICE BUILDINGS
- FACTORIES
- WAREHOUSES



### EDUCATION



### TRAVEL



### SPORTS & LEISURE

- PRESCHOOL
- SCHOOL
- HIGHER EDUCATION
- PORTS & CRUISE LINERS
- AIRPORTS
- BUS & RAIL STATIONS
- GYMS & SPORTS CLUBS
- MUSEUMS & CONCERT HALLS
- STADIUMS & RACETRACKS

# ACCURATE, EASY-TO-USE SCREENING DESIGNED TO KEEP PEOPLE SAFE

VIRALERT 3 is the safety gatekeeper for your site, providing the first stage of risk reduction against COVID-19 and other infectious diseases.

Screening visitors at the point of entry, it rapidly detects elevated temperatures that could be a sign of fever – a key symptom of COVID-19.

Unlike handheld thermometers, which compromise social distancing, the VIRALERT 3 scans automatically from a safe distance. Visual, audible and email alerts provide the warning you need to keep everyone safe.

The VIRALERT 3 has been developed over the course of ten years by AMETEK Land's world-leading temperature monitoring experts. It is a real-time scanning solution that's safe, accurate, and easy to use.

## SAFE SCREENING

- INSTANT, NON-INTRUSIVE INFRARED THERMAL IMAGING FROM A DISTANCE

## FAST RESPONSE

- MONITOR VISITORS WITHOUT SLOWING THE FLOW OF PEOPLE

## HIGHLY ACCURATE

- DEVELOPED BY WORLD-LEADING TEMPERATURE MONITORING EXPERTS

## ACCURATE

- Integrated blackbody source ensures reliability
- Supported by 70+ years of industry expertise
- Automatic face detection for best monitoring points



## EASY

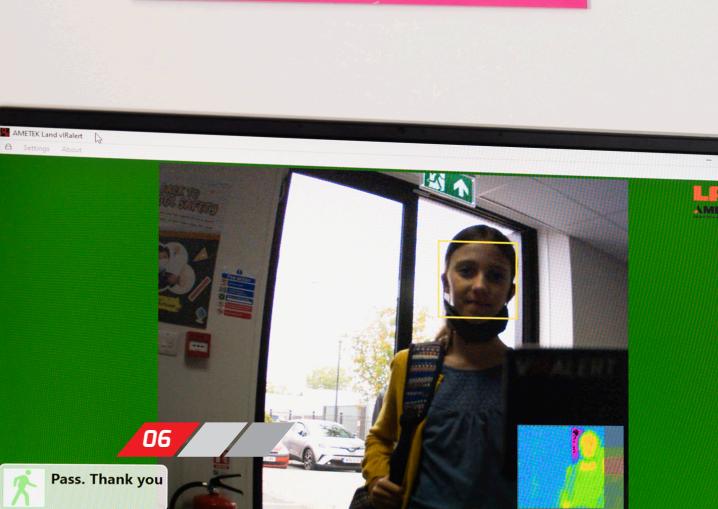
- Intuitive user control
- Audible alarm and on screen notification
- Automated operation

## SAFE

- Non-contact temperature monitoring camera
- Immediately detects elevated skin temperature
- Maintains social distancing



**SEE IN ACTION**



# GET THE FACTS ON TEMPERATURE SCREENING



## THERMAL IMAGING VS HANDHELD NON-CONTACT THERMOMETERS

Discover the safety and accuracy issues created by using a handheld thermometer and how thermal imaging can solve them by integrating a blackbody source into the system.



## THE IMPORTANCE OF ACCURACY IN TEMPERATURE SCREENING

Our expert shares why screening accuracy is directly related to safety and illustrates the challenges that have to be overcome to attain an effective reading.

**CLICK TO WATCH**



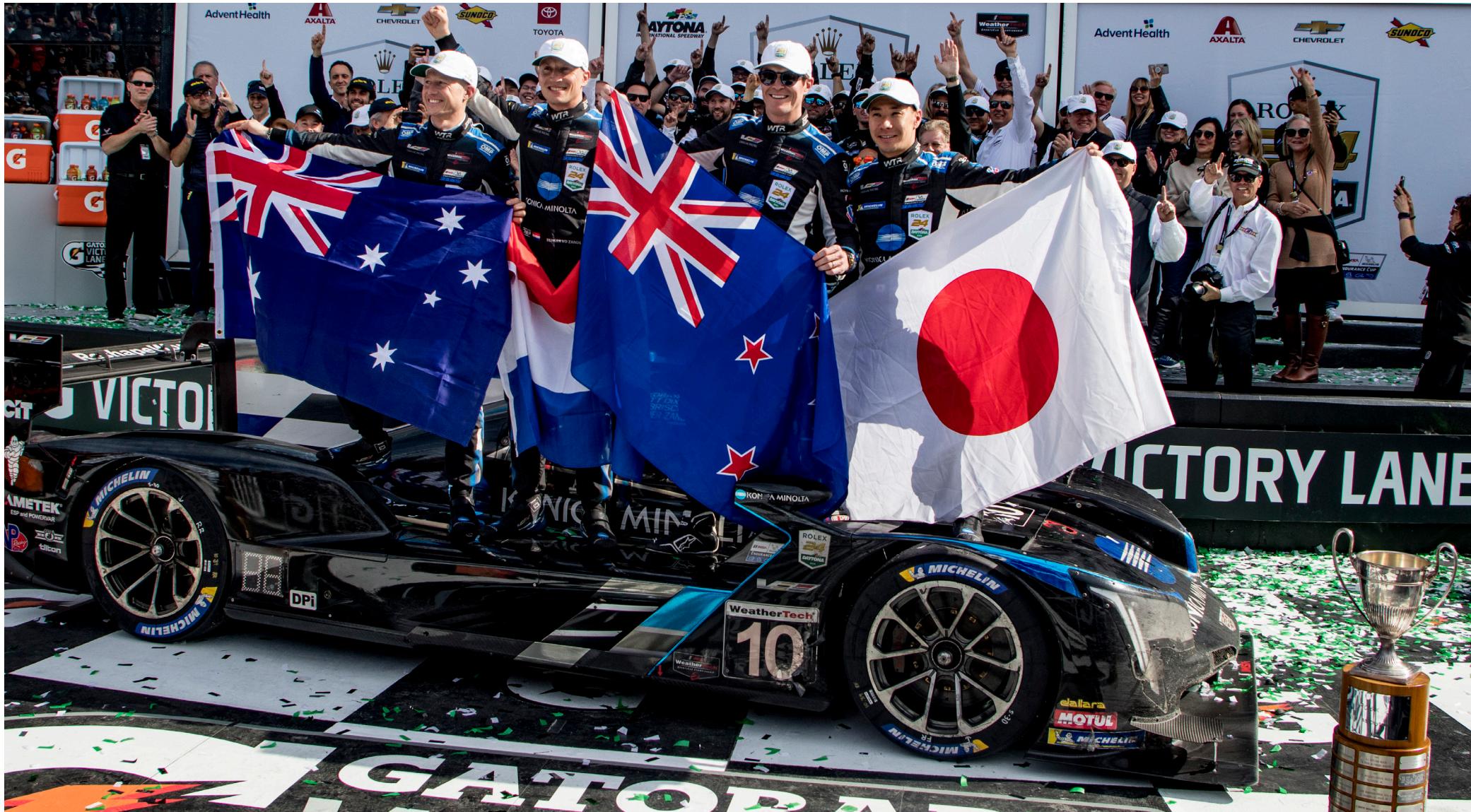
## SINGLE PERSON OR CROWD SCREENING THERMAL TEMPERATURE SYSTEMS?

Find out why crowd screening can produce false positives and negatives that mean it is not suitable for frontline screening purposes, along with concerns regarding the use of facial recognition software in these systems.



**CLICK TO WATCH**

# POLE POSITION FOR TEMPERATURE SCREENING – CASE STUDY



We provided a VIRALERT 3 human body temperature screening system to Wayne Taylor Racing (WTR), the global motorsports enterprise based in Indianapolis.

The team's race shop (factory) was reopening after the COVID-19 lockdown, and the system was used

to check team members and visitors as they entered the site.

VIRALERT 3 proved so popular and successful that WTR wanted to use it at the racetrack to screen anyone entering the team workspace to help keep everyone safe during the race season.

Led by our Director of Innovation and Technology, Dr. Peter Droege, AMETEK Land worked closely with WTR Technical Director Brian Pillar to develop a new software algorithm that would allow VIRALERT 3 to operate accurately in semi-exposed conditions trackside.

This required the use of our comprehensive testing facilities, which include the capability to push equipment to its limits in hot and cold environments.

This testing equipment proved vital in rapidly developing a robust algorithm that detected elevated temperatures



**Travis Hauge**, General Manager, Wayne Taylor Racing

*"At Wayne Taylor Racing, we have had the VIRALERT 3 in place since the beginning of the pandemic. As an active organisation in a large facility, it has been a great asset to have our guys be able to instantly log their temperatures every morning as well as throughout the day.*

*"As a manager, knowing that the VIRALERT 3 has created a log that we can refer to daily has helped keep the safety of our employees and guests paramount through this time."*

## STAYING SAFE AT A MEDICAL PRACTICE – CASE STUDY



A busy medical centre based in Derbyshire, UK, Dronfield Medical Practice has eight general medical practitioners.

The practice operates a 'green zone' – this means that anyone showing potential symptoms of coronavirus

should not attend, to protect other patients and staff. The centre operates a face mask-wearing policy and follows strict hygiene protocols.

VIRALERT 3 was installed in the reception area to check anyone entering the practice for an elevated temperature – an indication of fever

associated with COVID-19 and other infectious diseases.

The VIRALERT 3 automatically scans visitors as they enter the premises, providing a rapid assessment of their temperature in an easy-to-understand traffic light format.

Green means the person has a safe temperature, while red indicates an elevated temperature has been detected. In these circumstances the visitor is asked to leave the premises immediately to have their temperature re-checked, by staff wearing protective equipment,

outside the building, typically in their car.

The system is used by around 150 people every day, providing staff and patients with an extra layer of security and confidence.



**Dr Stuart Saunders,**  
Senior Partner

*"We wanted to see how we could all work together to 'Stay Alert' by ensuring patients are seen appropriately, and by keeping all staff secure with the knowledge they are being looked after. The installation of the VIRALERT equipment has been a very effective way to achieve this. If a patient's temperature is high, we can ask them to leave the premises, then arrange to see them safely without putting anyone at risk."*

## TENNIS CLUB PLAYING SAFE WITH VIRALERT – CASE STUDY



VIRALERT SET UP AT HALLAMSHIRE TENNIS CLUB

Hallamshire Tennis, Squash & Racketball Club was established in 1885, and is a founder member of the Lawn Tennis Association. It offers excellent facilities for racket sports, and coaching programmes for all abilities to around 1,650 members. The club is also home to Wimbledon tennis winner Jonny Marray, and squash champion Nick Matthew.

The club was looking for a way to reduce the considerable risks posed to leisure facilities by the COVID-19 virus entering the premises. It used hand sanitisers and social distancing measures, and also reduced the use of communal facilities.

The club decided to install VIRALERT 3 in its reception area to check anyone entering the site for an elevated

temperature that could indicate fever, a key symptom of COVID-19 infection.

The non-contact VIRALERT 3 temperature screening system was quickly set-up in the reception of the club to provide measurement of members as they enter the facilities, without contravening social distancing guidance.

Any visitor displaying an elevated temperature is safely double-checked with a medical thermometer – if an elevated temperature is confirmed, they are asked to leave the building and seek medical advice.

Quick and automated, the system is used by about 250 people each day, giving staff and members alike an added level of security and confidence.



**Tom Murton,**  
General Manager

*"VIRALERT 3 has given us greater confidence opening the indoor facilities at the club, knowing that we have taken the necessary precautions to keep our members and staff safe.*

*The system is easy to set up and fast to take the measurement, so there is no delay for those eager to get out on the court!"*

# VIRALERT 3 – FLEXIBLE SET-UP TO SUIT YOUR FACILITIES

[CLICK TO WATCH](#)

IDEAL FOR A WIDE RANGE OF ENVIRONMENTS, USE WITH A FIXED MOUNT OR PORTABLE ACCESSORIES



# COMMON QUESTIONS ABOUT THERMAL SCREENING

MORE GUIDANCE

*What's the gold standard for temperature screening?*

AMETEK Land's proven, patented method uses an integrated, 'in scene' blackbody heat source to minimise the effects of the surrounding environment.

If the distance of the blackbody and the person measured are known, it is possible to calibrate the measurement in real-time, in non-ideal conditions, using a feedback loop and algorithm in the associated software. This delivers reliable, repeatable results at a safe distance.



*How can we compensate for seasonal temperature variations?*

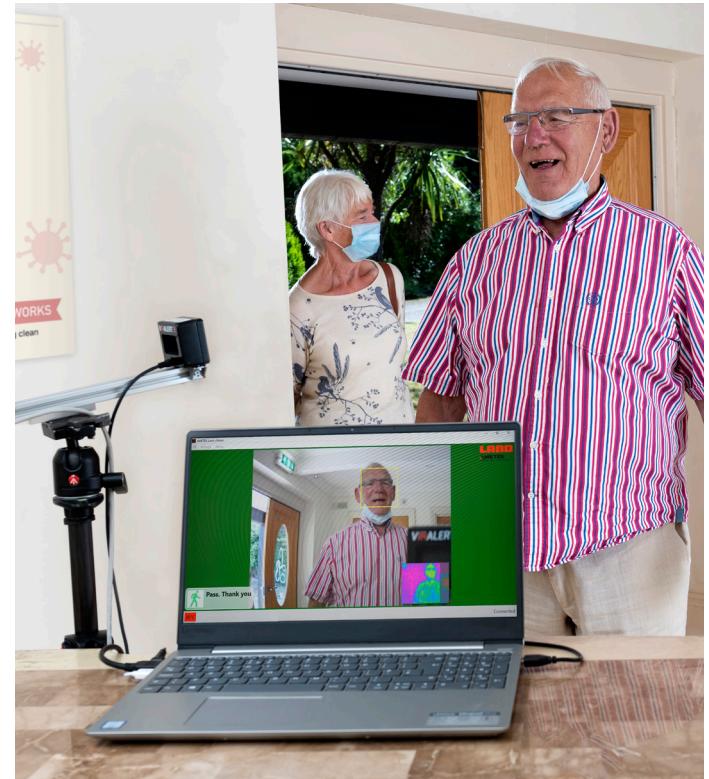
To account for variations and prevent false negatives during winter months, when a lower skin surface temperature may be exhibited, we recommend using a trending function to account for these differences, highlighting temperatures that are above the current average, but still below the alarm threshold.

The VIRALERT 3 system software has been upgraded to address this issue automatically.



*What factors need to be considered when screening?*

- Site the system to view a neutral background for maximum accuracy
- Keep heat sources outside of the field of view of the thermal imager
- Ensure exterior doors and HVAC vents are excluded from the field of view of the thermal imager
- Prevent reflective surfaces and windows from influencing the measurement area
- Maintain a stable ambient environment with between 20-24 °C (68-75 °F) and less than 50% humidity



*What is the recommended screening procedure?*

We recommend the following points are included in your temperature screening procedure:

- Only scan one individual at a time
- Glasses, masks, hats, and hoods should be removed
- Long hair covering the face should be moved
- A process for handling individuals who exhibit an elevated temperature reading above the established temperature threshold should be defined
- Temperature screening systems should be used as part of a broader risk mitigation strategy following set processes and policies for use, not as a standalone solution



# HOW TO INCREASE YOUR ORGANISATION'S RESILIENCE TO COVID-19

AMETEK Land is the world's leading manufacturer of monitors and analysers for industrial infrared non-contact temperature measurement, combustion efficiency and environmental pollutant emissions.

Founded in the UK in 1947 as Land Instruments International Limited, we developed a reputation for producing innovative, resilient measurement technologies designed to operate in the most challenging conditions.

AMETEK Land continues to develop award-winning technologies that push the limits demanded by the ever-increasing technical requirements of global industry, meeting the challenges of a wide range of applications.

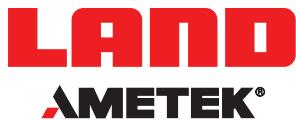


**KEEP UP TO DATE WITH THE LATEST RESOURCES AND ADVICE FOR TEMPERATURE SCREENING AS WELL ACCESS TO VIRALERT SOFTWARE UPDATES**



**LANDVIRALERT.COM**

**Disclaimer:** Human skin temperature is affected by a wide number of environmental and physiological factors. Elevated facial skin temperature may signify a raised body core temperature; correspondingly, an elevated core temperature may not be accompanied by a raised facial skin temperature. VIRALERT systems are accurate scientific systems that must be operated strictly in accordance with the manufacturer's operating manual. VIRALERT systems are not intended, nor designed, to diagnose or detect medical conditions including, but not limited to, viruses or other illnesses. AMETEK Land thermal imaging products should only be used to detect variations of surface temperature. If elevated skin temperature is detected, the finding should be confirmed by other means, for example, an approved medical thermometer. The absence of an elevated skin temperature does not exclude a fever. Images shown in this document are for illustrative purposes only.



## CONTACT US



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