

VIRALERT 3 SKIN TEMPERATURE SCREENING SYSTEM EXPERT Q & A

WHAT IS A TEMPERATURE SCREENING SYSTEM AND HOW DOES IT WORK?

Temperature screening systems are designed for highly accurate human body temperature measurements, which could play a fundamental role in helping to contain the spread of COVID-19 and other infectious diseases.

Using simple and intuitive software, this point-of-entry system provides automatic on-screen and audible alarms to alert the operator so that early action can be taken to protect the premises against the risk of spreading the infection.

The LAND VIRALERT systems are designed to be installed at the point of entry into a building, site or vehicle, scanning one person at a time from a distance of one to two metres. The best place to measure elevated skin temperature is the face, so, by using a fixed camera and calibration source, we define the typical area where the face will appear.

They have a wide enough field of view to cover a range of heights and automatically locate a person's face, storing temperature data and triggering an alarm if a temperature above the configured maximum is detected.



WHAT MAKES AMETEK LAND AN EXPERT IN SKIN TEMPERATURE MEASUREMENT?

LAND has been developing products and technology in measurements since 1947. Its products are supported by industries around the world. Because we have been doing this for such a long time, we have a trusted reputation for market-leading, accurate products.

We patented our first system for healthcare and medical applications in 2003. The Human Body Temperature Measurement System (HBTMS) was a response to SARS. By the time the swine flu outbreak struck in 2009, we'd refreshed and refined that product to develop the original VIRALERT system.

This experience meant that when the COVID-19 pandemic began, we were able to bring a new version of VIRALERT to market quickly (VIRALERT 3), building on the innovations of the original system.

WHAT IS THE ADVANTAGE OF USING A TEMPERATURE-DETECTING THERMAL CAMERA RATHER THAN A DIGITAL THERMOMETER?

The big benefit is that these cameras are non-contact, which makes it safer for everybody, allowing anyone to comply with physical distancing. Staff don't have to get close to the person being measured, unlike with digital thermometers. There's also no chance of transferring the virus from an asymptomatic carrier to the next person via the thermometer.

The measurement is also much quicker than traditional methods so there will be minimal impact on the flow of people. VIRALERT 3, our latest technology, scans in approximately two seconds.

Digital thermometers also take the temperature at one small point, while thermal cameras scan the entire face, locating and measuring the hottest points. In addition, a temperature screening system removes human error from the process – there's no need to manually record data, as it's automatically handled and stored.

CAN VIRALERT DETECT COVID-19?

VIRALERT systems and other temperature screening systems are not medical devices. They are not intended or designed to diagnose or detect medical conditions. 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.

HOW DIFFICULT IS IT TO GET SYSTEMS LIKE THIS UP AND RUNNING? DO YOU REQUIRE ANY TRAINING TO IMPLEMENT THIS?

Setting up VIRALERT 3 is very quick and simple, working straight out of the box. It has an intuitive user interface that doesn't require any training. If you can use a computer, you can use VIRALERT 3.

HOW MANY PEOPLE CAN I SCREEN AT A TIME AND HOW LONG DOES IT TAKE?

You can screen one person at a time. It takes approximately two seconds for the screening to take place, so it is very fast – up to 30 people per minute.

CAN YOU USE VIRALERT 3 OUTSIDE OF A BUILDING?

LAND recommends internal use, as it is better if it is in a controlled environment. It has been used outside with reliable readings but in such cases should be protected from wind and rain as it is not IP sealed and both weather conditions can affect the performance of the system. If you do wish to use externally, we would recommend a screen behind the camera to stop any reflections e.g. car windscreen and sunlight that could affect the reading.



CAN YOU WEAR A MASK WHILE TEMPERATURE IS BEING READ?

We would advise that masks are pulled down so that most of the face is visible to ensure consistent readings, for accuracy and readability.

HOW MUCH SPACE IS NEEDED FOR THE SYSTEM?

VIRALERT 3 is the most compact temperature screening system on the market. It has an overall footprint of around 35cm in length, and with a single point mounting it is easy to install and discrete. It also has a simple single cable between the camera and laptop that splits into ethernet and USB so it can be powered from a laptop, avoiding extra cables and wires.



IS TEMPERATURE SCREENING APPROVED BY ACCREDITED BODIES?

Temperature screening for medical purposes is regulated in the US by the FDA; VIRALERT 3 meets FDA guidelines published in April 2020 for initial body temperature assessment during the Covid-19 Public Health Emergency. VIRALERT 3 meets the requirements through its accuracy specification, the inclusion of a blackbody temperature reference source and being designed for single person screening.

Each VIRALERT 3 system is manufactured in our ISO9001 accredited UK facility and calibrated using standards that are traceable to our ISO17025 accredited lab.

Our UK facility is also accredited to ISO 14001 environmental standards and ISO45001 occupational health and safety.

VIRALERT products have successfully been designed to avoid any special export requirements so that these products can be quickly and easily exported around the world.

CAN VIRALERT 3 BE INTEGRATED INTO BUILDING MANAGEMENT SYSTEMS?

Yes it can. A simple digital output from the system into a barrier or turn-style can stop people who have registered a high temperature from entering the facility, or more advanced software features include the option to integrate into building management systems such as barcode recognition scanners.

For more information on the VIRALERT systems go to www.landviralert.com.

Watch VIRALERT 2 in action here:
https://www.youtube.com/watch?v=DZdPLI_bSfQ



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