

What To Look For in a Fever Screening System

As we all get back to the “new normal” many are faced with the dilemma of how to ensure the safety of their employees and patrons. Whether you operate a large manufacturing facility, a hospital, a municipal building, an airport, or even a shopping center, you may be looking for ways to stop infected individuals from entering your building. One way to add a layer of security is to check the temperature of everyone as they enter the facility. There are, however, a number of options on the market and you may not be sure which is best for you. To help, we have put together some of the key considerations to look at when shopping for a fever screening system.

Measurement Method

How is the temperature being taken? Are you using a handheld thermometer to check? Does it scan the forehead, or use another method? According to international standard ISO/TR 13154: 2017 which provides general guidelines for the deployment of a non-invasive febrile temperature screening system, the best way to measure core body temperature is by focusing on the inner canthus, or inner corner of the eye socket. This is because surfaces like the forehead can be affected by outdoor conditions. For instance if it is snowing outside, the forehead will be cold until the body has regulated itself. The inner corner of the eye is less affected by such conditions and will show a more true reading of actual core body temperature.

Location

Where are you checking temperatures? While it seems obvious, it is worth noting that temperature screenings should be conducted indoors. Ideally, the area should be between 60° to 80° F for two reasons. First, as mentioned above is that the temperature of those being screened will be affected by the external environment. Second, drafts and other weather conditions can negatively affect the stability of the system.

Speed

How busy is your facility? If you have more than 200 employees or regularly have a high volume of foot traffic into your facility that need to be screened, manual temperature checks of each person will seriously slow traffic. If you need staff to get clocked in on time, then you need to consider a different option. This is why mass fever screening utilizing thermal cameras may be a better solution than manual checks.

Accuracy

Is the device you are using accurate enough to detect an individual with an elevated temperature? First of all, as mentioned above you will achieve the best accuracy when the system is operated inside. Second, the system itself needs to be sensitive enough to catch a slightly elevated temperature. Unfortunately, we have seen several products on the market that are repurposing thermal security cameras for fever screening purposes. These cameras are simply not intended for detecting slight changes in temperature and will not be reliable enough for your needs. In addition, the utilization of a blackbody calibration device within the frame can act as a constant verification check to ensure that the measurements are as accurate as possible.

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Alarms

How do you want the system to alert you when it detects someone with an elevated temperature? There are a number of options from audible alarms or visual alarms to relay signals that do not allow the door or turnstile to open. Please note that no mass screening system is to be used for diagnostic purposes. The objective is to alert your team so they can conduct a secondary screening to determine if the individual is ill.

One available option is email alerts when someone has triggered the system. If you have a color camera along with a thermal camera, the system can send an email with an image to a designated person so they can discreetly pull the person in question aside for a secondary screening.

Trusted Technology

How reliable is the system you are using? Has it been tested over time? With recent events, quite a few companies have tried to capitalize on the need for temperature screening systems. Because not all of these organizations have experience in measurement and because some of these systems are quite new, they haven't had time to truly work out all the kinks in the system to guarantee that their system will provide accurate and repeatable measurement over time.

Service

Are you purchasing a system from a company that you may never have contact with again, or are you buying from a local company that can provide ongoing service and support? Because you are purchasing a measurement system, you inherently will require ongoing service for calibration, at the very least. Without regular calibration, there is no way to guarantee that the data from your system is accurate. Beyond that, if there are any other issues that come up with your system who will you call? It is helpful if the company that sold you the equipment can install it and provide ongoing service and support that you can rely on.

Complete System

Do you have all the components you need to set up a fever screening system? Many options on the market now only include part of the system and leave it to you to piece together the rest. Ideally, your system will include the thermal imaging camera, a blackbody calibration device, a computer, software, and mounting equipment. If the system you are purchasing does not include all of these components make sure to consider the additional costs associated with the other parts needed.