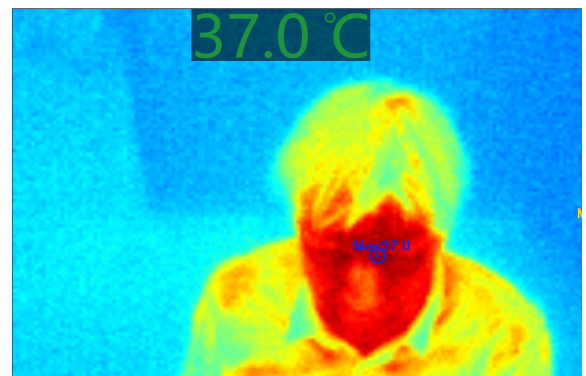
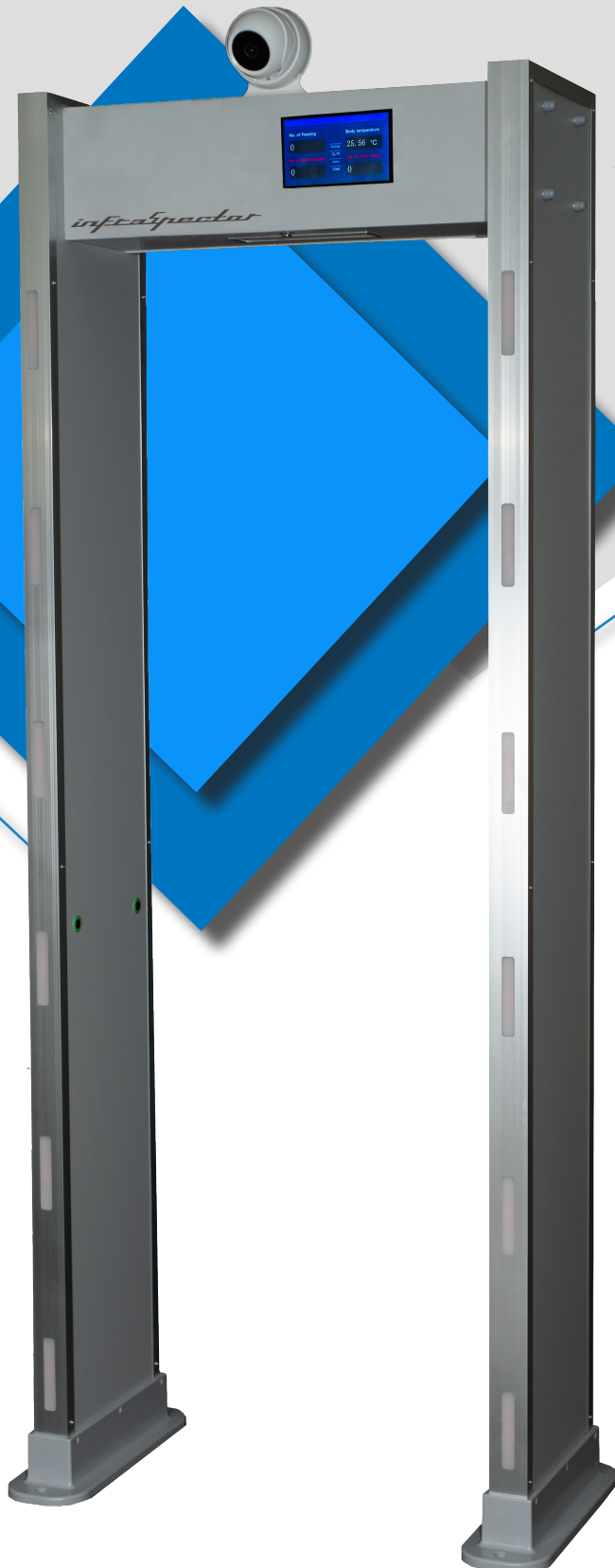


# *infrAspector*

Thermal Entry Screening Portal



**mek®**

because inspection matters

# Introduction

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## Thermal Entry Screening

In our changing world the threats to human health posed by viruses are intensifying. Corporations are morally or legally obliged to take precautionary measures to protect visitors and employees and reduce the chances of infection. Detection of elevated body temperature is an important factor in ensuring safety of visitors and employees. The InfraSpector Thermal Entry Screening Portal is based on an IR thermal imaging camera or sensor. Its contactless measurement characteristics are optimised for the human body temperature range.

Thermal Entry Screening is now recognised as a fast and pragmatic tool for this purpose, not only for the current global Coronavirus crisis, but also as an innovative long-term solution, to protect and reduce illness by limiting the spread of infections. Investment can reduce illness absence and risks of infection without the need for additional staff to operate the equipment. In many countries recommendations and sometimes mandatory regulations have been made for this type of screening.

## Applications

The Thermal Entry Screening Portal can be used in different applications such as:

- Public services: Airports, railway stations, town halls, public authorities, schools, hospitals.
- Essential companies: Shopping centres, supermarkets, bakeries, pharmacies.
- Social meeting places: Churches, theatres, museums, stadiums, bars, restaurants.
- Private companies: Factories, offices, hotels, retail.

## Privacy

Despite the presence of a camera, only thermal images are used for screening. These images do not contain any optical details, just temperature zones. InfraSpector portals have no face recognition nor recording functionality. Depending on the application, authorities (GDPR, H&S) have regulations regarding privacy and use of medical data. Examples are voluntary screening or isolated use from other systems. Additionally, measures after positive detection can be of importance (like use of facials masks or entry disallowance). For your application, it is recommended to verify privacy and medical issues with local authorities prior to use of the system.

## Mek Europe/Americas

Has specialized in electronics inspection for more than 25 years. With leading AOI technology (2D/3D Automated Optical Inspection), Mek supplies to the electronics manufacturing industry globally for PCB-Assembly inspection.

Mek-Europe distributes and supports a portfolio of innovative AOI machines from Japanese manufacturers Marantz Electronics (Mek) and Nagoya Electric Works, across Europe, Americas, Middle East and Africa. Drawing on its expertise in innovative inspection technology Mek Europe/Americas has expanded its product range with the introduction of the InfraSpector- an inspection solution based on thermal imaging.

# Features

Thermal Entry Screening Portal	<i>Detection of elevated body temperature (as symptom of fever)</i>
Thermal detection based on infrared imaging technology	<i>Contactless measurement</i>
Camera model (infraSpector C-series) continuous measurement by non-stop-walk-through	<i>Maximum capacity of 40 persons per minute at 1.5 meters (59.1") spacing</i>
Sensor model (infraSpector S-series) measurement based by 'stop-and-go' within approx. 1s	<i>Maximum capacity of 10 persons per minute at 1.5 meters (59.1") spacing</i>
Measurement accuracy $\pm 0.3^{\circ}\text{C}$ (32.54 F)	<i>Reliable detection of elevated body temperature</i>
Pass-through sensor	<i>Counts incoming and outgoing persons; monitor the number of individuals</i>
Available in different passing widths: 70 (27.6") and 120cm (47.2")	<i>Extra wide gate available to accommodate Wheelchairs and Shopping carts</i>
Modular design	<i>Easy and quick self-assembly &amp; install</i>
Audible and/or visual alarm upon detection of elevated temperature	<i>Automatic Thermal Entry Screening without need for an operator</i>
Detailed thermal image visible on optional monitor (infraSpector C-series)	<i>Manual supervision possible</i>
Adjustable temperature threshold	<i>Example: auto-alarm when temperature is outside <math>36^{\circ}\text{C}</math> (96.8 F) - <math>37.3^{\circ}\text{C}</math> (99.14 F) range</i>
Automatically detects the highest temperature within a thermal image (infraSpector-C)	<i>Reliable detection independent of body height</i>
Twin Infrared sensors at different heights (infraSpector-S)	<i>Twin height detection ranges allowing temperature measurement of adults and minors.</i>
Integrated configurable colour LCD	<i>Hide or show your preferred data on display</i>
External interfacing possibilities	<i>Connectivity to external access system</i>
Optional add-ons	<i>Metal detector</i>



# infraSpector

## InfraSpector C-series (IR Camera)

Thermal Entry Screening Portal based on an IR thermal imaging camera with high accuracy and repeatability. Measurement characteristics are optimised for the human body temperature range.

Contactless measurement from a height of 120cm (47.2") or more using a non-stop-walk-through principle. The maximum temperature measured in a thermal image is used for the screening. The screening algorithm can be adjusted to trigger an acoustic and visual alarm when a temperature is detected outside of the acceptable range. Optionally a real time thermal image can be displayed on an external monitor for manned surveillance.

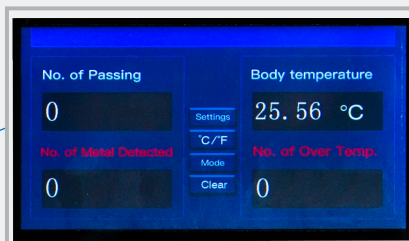
The system is driven by a Windows10 based Mini-PC and can be used for data analysis or interfacing to access systems if required (not included).

For pass-through counting purposes, integrated dual pass-through sensors will count the number of people entering and exiting to monitor the number of people on the premises. A colour LCD on top of the portal can be configured to hide or display thermal information and counting data. The walk-through principle of the camera-based screening system offers a maximum capacity of 40 persons per minute, based on a spacing of 1.5m (59.1") between individuals.

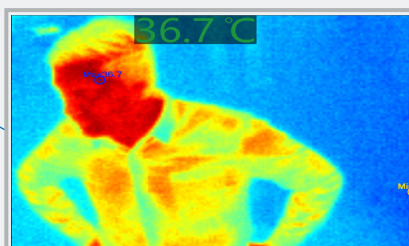
The 70 series models offer a passing width of 70cm (27.6"), while the 120 series models accommodate, for example, wheelchairs or shopping carts. The C70M model offers an additional metal detector to widen its application range.



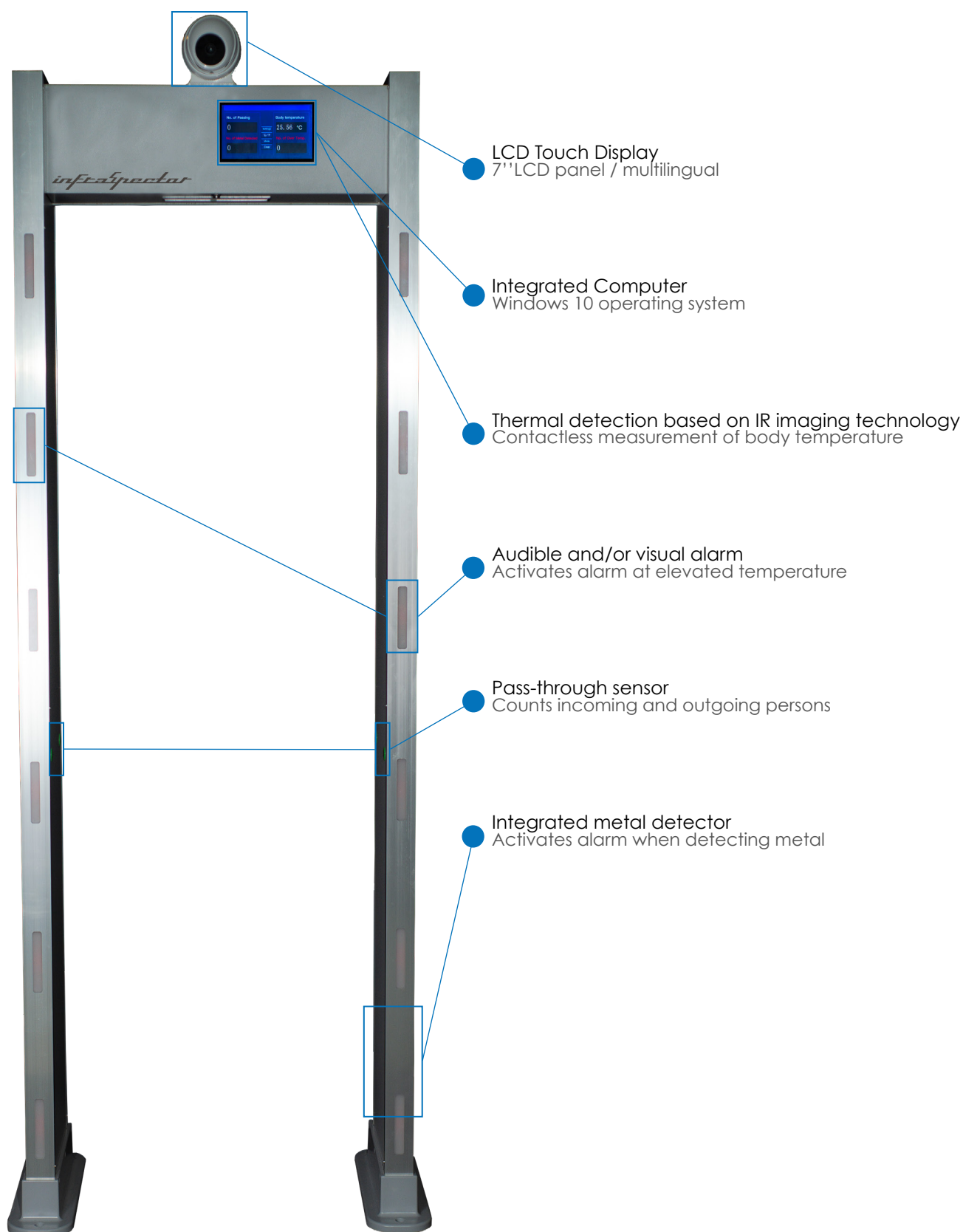
LCD Display



Live view



# Technical characteristics C-Series (IR Camera)



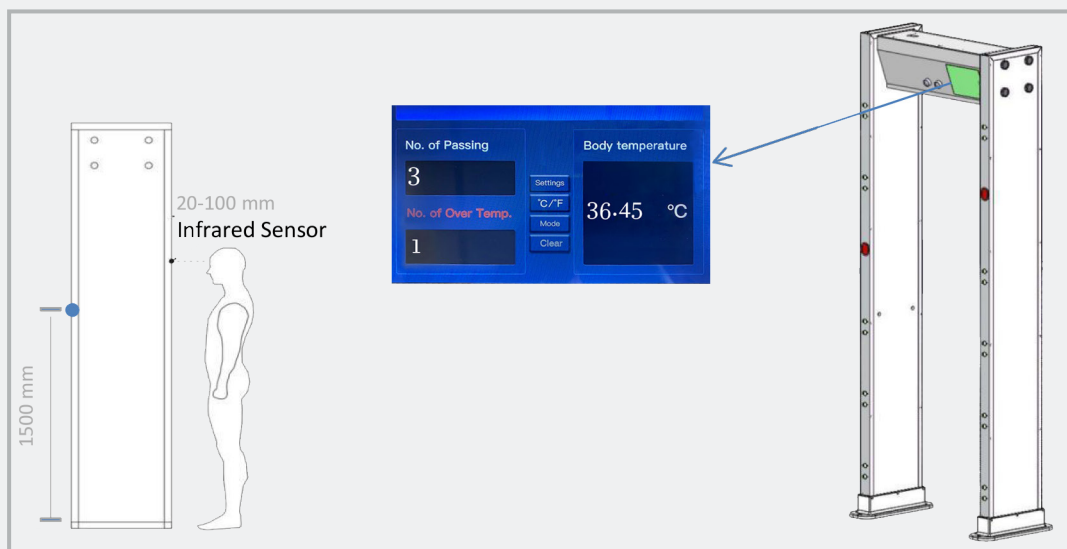
## InfraSpector S-series (2-IR Sensor)

Thermal Entry Screening Portal based on Twin IR thermal sensors integrated at different heights of 135cm (53.1") and 165cm (65.0"). The Sensor measures the temperature of the human wrist as the base for screening. Holding a wrist in front of one of the sensors at a distance of 20mm (0.8") to 100mm (3.9") will trigger the sensor for temperature measurement within 1 second. The measurement process takes place without physical contact with the sensor, using a stop-and-go-walk-through principle.

A screening algorithm can be adjusted to trigger an acoustic and visual alarm when a temperature is detected outside a certain range. The system is driven by an integrated controller (no PC).

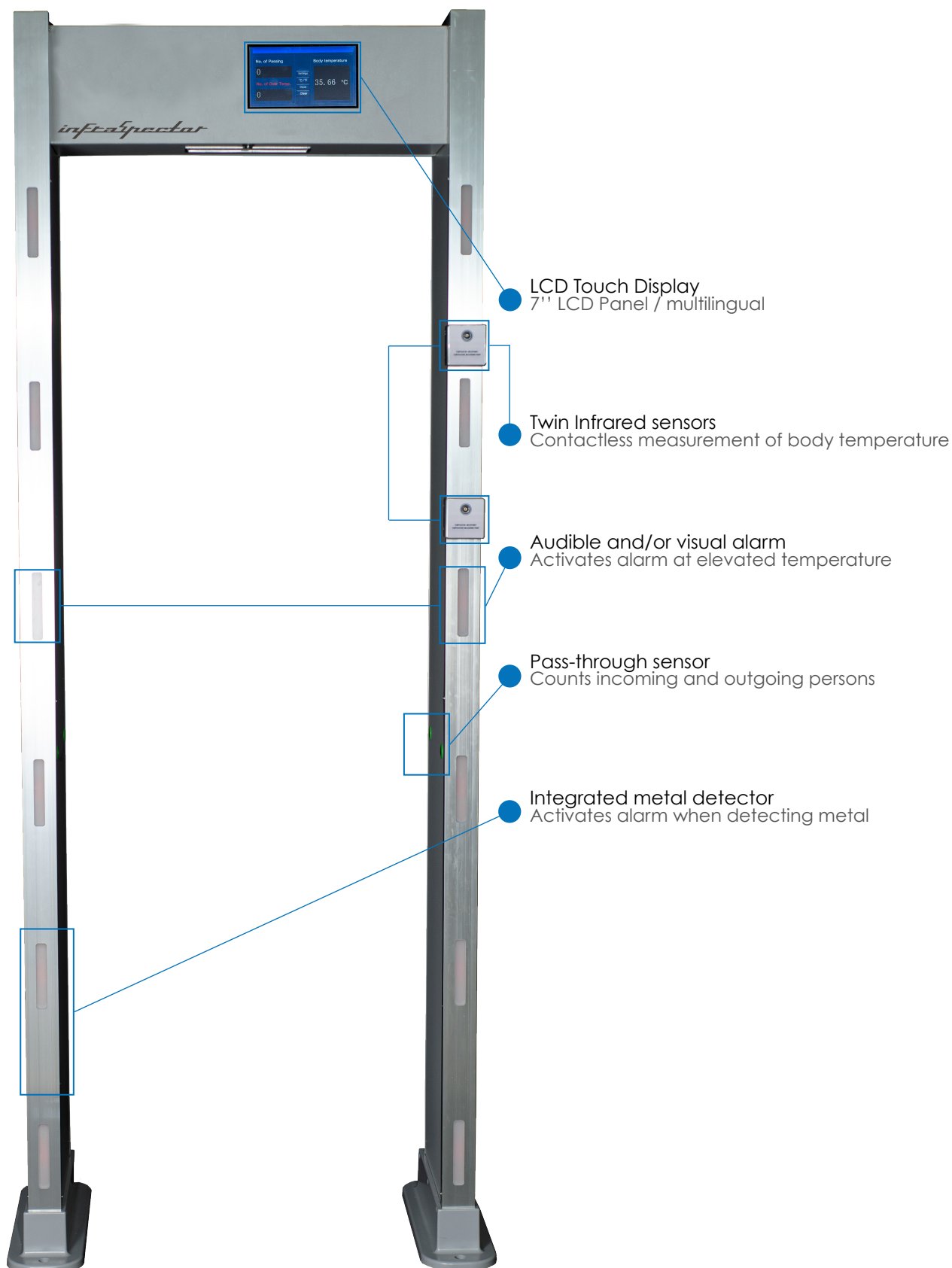
For pass-through counting purposes, integrated dual pass-through sensors will count the number of people entering and exiting to monitor the number of people on the premises. The colour LCD on top of the portal can be configured to hide or display thermal information and counting data.

The stop-and-go-walk-through principle of the sensor-based screening system offers a maximum capacity of 10 persons per minute, based on a spacing of 150cm (59.1") between individuals. The 70 series models offer a passing width of 70cm (27.6"), while the 120 series models accommodate, for example, wheelchairs or shopping carts. The S70M model offers an additional metal detector to widen its application range.





# Technical characteristics S-Series (Twin IR Sensor)



## Specifications C-Series (IR Camera)

	InfraSpector C70	InfraSpector C120	InfraSpector C70M
Detection type	Infrarood Thermische Camera		
Detection height	> 1.2m (47.2")		
Detection distance	0.5m (19.7") - 1.5m (59.1")		
Measurement speed	Ca. 0.5s		
Temperature accuracy	± 0.3°C (32.54 F)		
Display	7" Colour Touch LCD		
Temperature detection range	Ca. +30°C (86 F) tot +45°C (113 F)		
Alarm volume	Ca. 90dBA		
Passage width	70 cm (27.6")	120cm (47.2")	70cm (27.6")
Recommended Environment	10 - 35°C (50 F - 95 F), <65%RH, no wind, no direct sunlight		
Metal detector	--		Including
Power supply	110-240 V, 50/60Hz, 30W		
Computer hardware	Desktop Mini PC MFC-1000 / Intel Celeron Processor / J1900 SoC Quad core*		
Operating system	Windows 10		
Nett Weight	Approx. 81.6 lb Approx. 37 kg	Approx. 103.6 lb Approx 47 kg	Approx. 103.6 lb Approx 47 kg
Inner dimensions (WxDxH)	ca. 27.6"x 13.1"x 78" ca. 702 x 334 x 1983mm	ca. 82.6" x 13.1" x 82.6" ca. 1200 x 334 x 1983mm	ca. 27.6"x 13.1"x78" ca. 702 x 334 x 1983mm
Outer dimensions (WxDxH)	ca. 32.2" x 13.1" x 86.6" ca. 818 x 334 x 2199mm	ca. 51.8" x 13.1" x 86.6" ca. 1316 x 334 x 2199mm	ca. 32.2" x 13.1" x 86.6" ca. 818 x 334 x 2199mm
Shipping weight	Approx. 114.6 lb Approx. 52 kg	Approx. 136.7 lb Approx. 62 kg	Approx. 136.7 lb Approx. 62 kg

## Specifications S-Series (Twin IR Sensor)

	InfraSpector S70	InfraSpector S120	InfraSpector S70M
Detection type	Double Infrared Sensor		
Detection height	Approx 1.35m (53.1") & 1.65m (65.0")		
Detection distance	Approx.20 (0,8") - 100mm (3,9")		
Measurement speed	Approx 1.0s		
Temperature accuracy	± 0.3°C (32.54 F)		
LCD Display	7" Colour Touch LCD		
Temperature detection range	Approx. +25°C (77 F) tot +100°C (212 F)		
Alarm volume	Approx. 90dBA		
Passage breedte	70 cm (27.6")	120cm (47.2")	70cm (27.6")
Recommended Environment	10 - 35°C (50 F - 95 F), <65%RH, no wind, no direct sunlight		
Metal detector	--		Including
Power supply	110-240 V, 50/60Hz, 15W		
Nett Weight	Approx. 81.6 lb Approx. 37 kg	Approx. 103.6 lb Approx. 47 kg	Approx. 103.6 lb Approx. 47 kg
Inner dimensions (WxDxH)	ca. 27.6"x 13.1"x78" ca. 702 x 334 x 1983mm	ca. 82.6" x 13.1" x 82.6" ca. 1200 x 334 x 1983mm	ca. 27.6"x 13.1"x78" ca. 702 x 334 x 1983mm
Outer dimensions (WxDxH)	ca. 32.2" x 13.1" x 86.6" ca. 818 x 334 x 2199mm	ca. 51.8" x 13.1" x 86.6" ca. 1316 x 334 x 2199mm	ca. 32.2" x 13.1" x 86.6" ca. 818 x 334 x 2199mm
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Subject to changes in models, program or technical specifications reserved. E&OE.

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