



MERCURIO



COVID-19

Automatic thermal scanner for access control



Innovative system designed and produced in Italy

Introduction

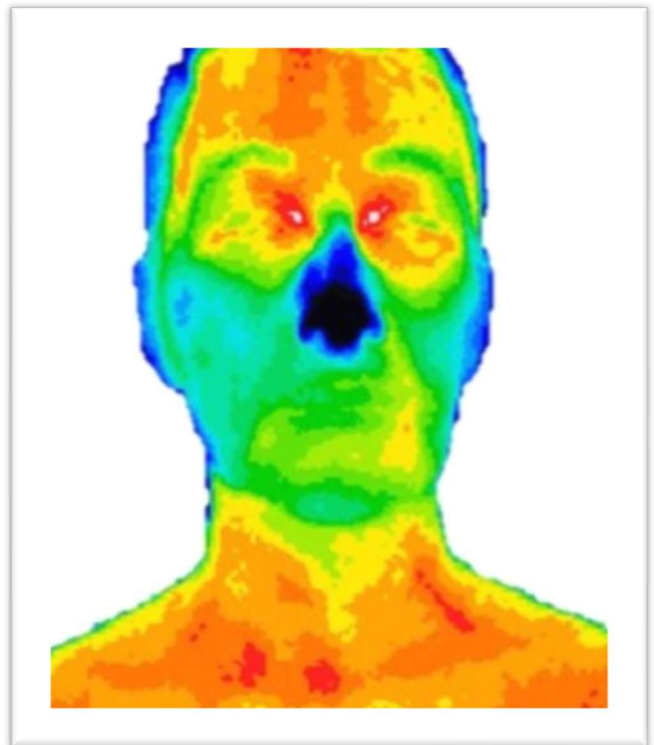
Flu viruses are capable of infecting respiratory tracts and causing symptoms such as cough, sore throat, gastrointestinal symptoms, myalgia, lethargy, and fever above 38 degrees centigrade.

From data collected on the recent Coronavirus (COVID-19), about 10-15% of infected patients develop severe complications [1]: in particular patients with previous disease such as hypertension, diabetes, asthma, cardiovascular problems. Part of these patients needs artificial respiration systems and careful observation in hospital facilities.

The high number of patient admissions recorded in the previous weeks has saturated some of the Lombardy and Veneto hospitals, and the number of infected people continues to increase exponentially.

The Ministry of Health has therefore approved **containment measures** [2], among which demonstrations, events and activities that require the crowding of people are suspended. Commercial activities must follow these restrictions and appropriately **change their safety and service delivery standards**, in particular for crowded environments such as stations, airports, bars and shopping centers it is necessary to pay close attention to avoid spreading the virus.

To limit the spread of viruses and allow commercial activities to continue operating, special precautions must be taken: **febrile symptoms** can be used to identify people potentially infected with flu viruses.



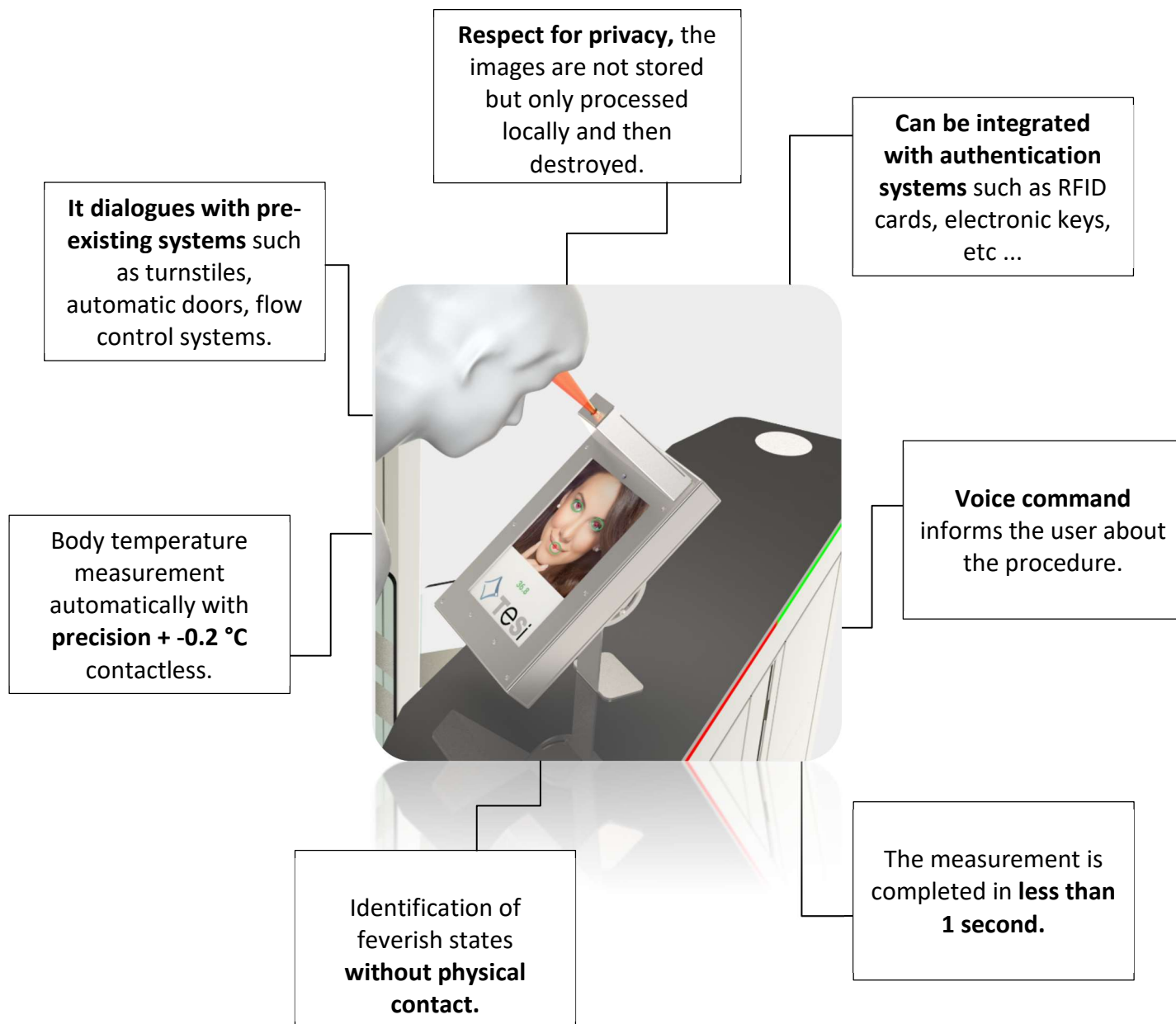
[1] [Fortune – “Coronavirus symptoms can progress from moderate to severe ‘very, very quickly’”](#)

[2] [Ministero della salute – nuovo coronavirus](#)

The solution

Tesi Tecnologia & Sicurezza has designed a system that **automatically checks the fever symptoms** with medical precision, without the use of complicated instruments and procedures.

The system integrates with most of the existing access control systems: it dialogues with turnstiles, automatic doors, interlocked doors.



MERCURIO is the solution designed by TESI Tecnologia & Sicurezza which allows to automatically identify fever symptoms of the people who access.

The measurement takes place without any physical contact, in compliance with hygiene regulations in order to prevent the spread of viruses. A sophisticated thermal radio sensor automatically **detects the user's face and measures its temperature**.



The intuitive interface informs the user on how to position himself within the frame, if it is not clear, **a voice informs the user on the procedure and the outcome**, then inviting him to enter.

The measurement is in no way harmful, since no radiation is emitted by the sensor, but only the radiation from the transit person is measured; Furthermore, this with the utmost **respect for privacy and does not retain any image or data**.

MERCURIO is compatible with most existing access systems and can be integrated with other security and authentication systems.

Features

Supply	100-240Vca 50/60Hz.
Power	10.5W
Battery	from 4 to 24 hours**
Operating temperature	-15°C MIN e +50 °C MAX
Protection	IP65**
Temperature reading speed	0.5 seconds
Accuracy	+/-0.2 °C
Resolution	0.02 °C
Weight	4.8kg
Input	4 optoisolated inputs
Output	4 relays low power + 1 relay 60W
Communication	RS485
Electronic key	1 key input (up to 500 programmable user)

** on request

The device can be rotated to adapt to all types of installations allowing a 180 ° rotation.



MERCURIO can communicate with an alarm control unit or the control unit of an access management system or with our innovative OPLA 'LTD system (single transit control without mechanical gates), alternatively a siren or a traffic light can be connected.

Installation

MERCURIO can be mounted on: a wall, a door profile, a base, a turnstile or the optional pole supplied by Tesi, which offers the possibility of simply moving the system.

Inside or outside environments and like any project created by Tesi Tecnologia & Sicurezza, it can be integrated with other systems, for example, a remote management and monitoring console can be integrated for various accesses.

