

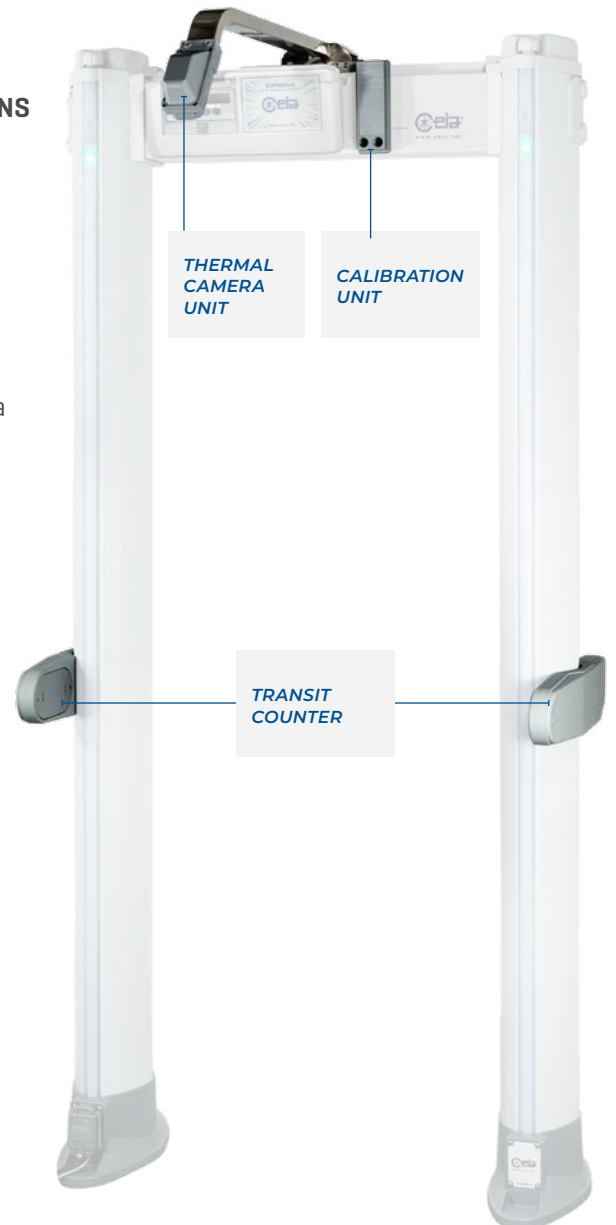


# TDU THERMAL DETECTION UNIT

**ANTI-COVID  
SECURITY SOLUTION**

## ANTI-COVID EMBEDDED SENSOR FOR CEIA SECURITY WALK-THROUGH DETECTOR GATES

- **DESIGNED FOR FAST AND COST EFFECTIVE SCREENING OPERATIONS**
  - ▶ Simultaneous threat and fever detection
  - ▶ No separate screeners for body temperature control needed
  - ▶ On-the-fly body temperature measurement, no need to stop
- **EMBEDDED UPGRADE**
  - ▶ No additional installation checkpoint space required
- **AUTOMATIC DETECTION OF HIGH BODY SURFACE TEMPERATURE**  
through infrared thermal camera that maps the internal gate area
- **TEMPERATURE COMPLIANCE OR ALARM SIGNALLING**  
provided by the gate control unit display
- **EXCLUSIVE INTEGRATED THERMAL CALIBRATION SYSTEM**  
with Dual Temperature-Stabilized Reference
- **SELECTIVE MEASUREMENT ON ONE PERSON ONLY IN TRANSIT**
- **EASY TO INSTALL AND TO OPERATE**
- **STAINLESS STEEL AND TECHNICAL POLYMERS CONSTRUCTION**
- **COLUMN AND PANEL TDU UPGRADE VERSIONS AVAILABLE**
- **PATENT PENDING**



*CAN BE INSTALLED ON ALL CURRENT  
CEIA SECURITY GATES*



[www.ceia.net](http://www.ceia.net)



*Threat Detection through Electromagnetics*

The rapid spread of COVID-19 infections has required the introduction of containment measures at all levels. Measures include the use of face masks, social distancing and also the measurement of body temperature as an indicator of possible virus infections.

**Security checkpoints at the entries to airports and other sensitive buildings should now be equipped with security systems compliant with the new measures.** This means detecting target threats with the minimum rate of nuisance alarms in order to limit the number of secondary checks necessary, reduce contacts between checkpoint operators and persons in transit and reduce waiting times upstream from the system. **All in all, this requires a metal detector with a very low nuisance alarm rate.**

In order to comply with COVID containment measures, **screening operations should also include the measurement of body surface temperature to intercept fever temperatures.** This has to be done without adding any extra manual operations and avoiding any contact between screeners and the persons screened.

*The TDU (Thermal Detection Unit) is an upgrade sensing kit for COVID screening compliance that can be installed on all current CEIA Security Gates, allowing the following functions:*

- Simultaneous threat and fever detection on all screened persons
- Accurate body surface measurement using an infrared camera with automatic determination of the highest body temperature
- Indication of the thermal alarm on the control unit display
- Continuous calibration of the thermal measuring system using **two temperature-stabilized Reference Bodies**. Each reference is **constantly controlled by a sensor device that is 100% tested on a production setup** that is **NIST traceable** and verified with equipment that is calibrated to **ISO/IEC 17025** accredited standards.
- Transit direction and count verification with synchronization of the temperature measurement of the inspected person inside the gate. This ensures maximum accuracy and unique signalling

**TDU - SIGNALLING**



**OK**  
NO THERMAL ALARM



**THERMAL ALARM**  
THE CONTROL UNIT SHOWS THE BODY SURFACE TEMPERATURE

**TDU - SPECIFICATIONS**

<b>INFRARED TECHNOLOGY</b>	Bolometric
	Measurement sensitive elements: 19.200
<b>MULTISPECTRAL INFRARED</b>	8 µm - 14 µm
<b>THERMAL ALARM THRESHOLD</b>	Programmable from 34.0 °C to 42.0 °C
<b>ACCURACY</b>	+/- 0.3°C
<b>MEASUREMENT HEIGHT</b>	1.000 mm [minimum] / 2.050 mm [maximum]
<b>CALIBRATION</b>	Automatic, by exclusive integrated thermal calibration system with double reference [patented]
<b>WORKING ENVIRONMENT CONDITIONS</b>	INDOOR, 10°C - 30°C / Relative humidity < 80%

**TDU - UPGRADE KIT**

**ORDERING INFORMATION**

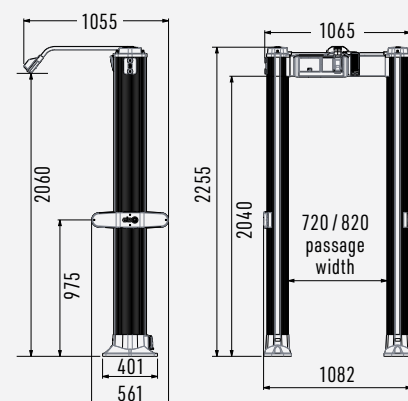
- 1 THERMAL CAMERA ARM
- 2 DUAL REFERENCE CALIBRATION UNIT
- 3 TRANSIT COUNTER  
(not needed if already installed on the gate)



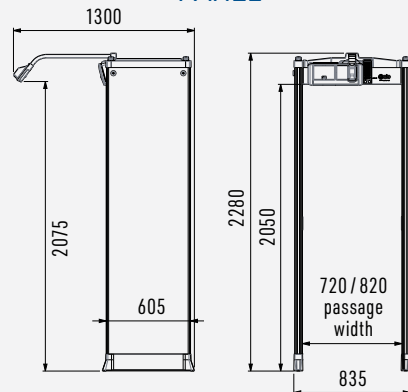
<b>ELLIPTIC COLUMN version</b>	COD. TDU/E	1 + 2
	4-Beam Transit counter COD. 46983	3
<b>PANEL version</b>	COD. TDU/P	1 + 2

**DIMENSIONS (mm)**

**ELLIPTIC COLUMN**



**PANEL**



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