

O2PN20

ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR FOR HIGH LEVEL APPLICATIONS

CERTIFIED
BY
GOVERNMENTAL
LABORATORIES*

KEY FEATURES

- **SUPERIOR DETECTION** and **THROUGHPUT**
- **HIGH DISCRIMINATION** of Non-Threat Items
- **EXCEPTIONAL IMMUNITY** to external interferences
- **COMPLIANT WITH** and **CERTIFIED** to the applicable Standards for Enhanced Metal Detectors
- **AESTHETIC, COMPACT** and **LIGHT WEIGHT**
- **EMBEDDED RADIATION PORTAL** for full height detection of radioactive materials (option)
- **EMBEDDED MI2 SENSOR** for superior smartphone and cellphone detection (option)
- **RAPID INSTALLATION**

* Data available upon request



COLUMN AND PANEL VERSIONS AVAILABLE



w w w . c e i a . n e t

Threat Detection through Electromagnetics

The continuous development of stringent Security Standards has prompted CEIA to release a series of **walkthrough Metal Detectors expressly designed for high level applications.**

These metal detectors based on the most advanced CEIA mechanical design, feature a **combination of advanced target detection and state of the art personal object discrimination.**



DETECTION OF ALL METALLIC THREAT ITEMS

- Capability to detect the full range of metal weapon threats even within body cavities
- Quick, accurate analysis of all parts of the body of people in transit, from the shoe level to the crossbar
- Guaranteed coverage for all orientations and locations, never in need of calibration
- Met-Identity technology for Identification of Threat Composition

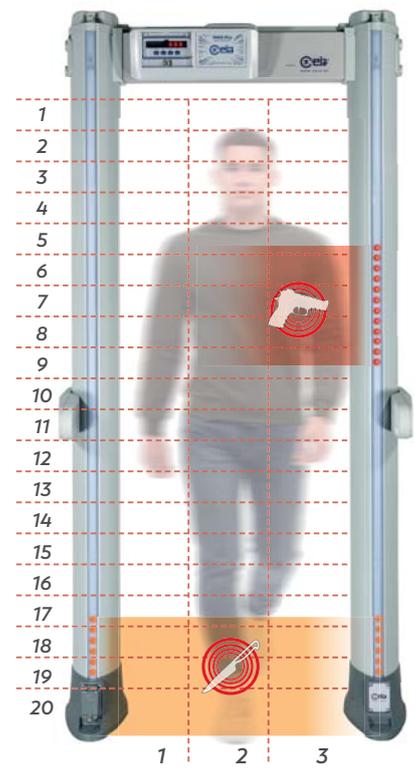


HIGH DISCRIMINATION & THROUGHPUT

- Cutting-edge discrimination technology allows personal effects to be ignored, creating rapid transit flow
- No need to remove items such as belts, coins, keys, jewelry, watches, wallets, etc.
- Better Discrimination = Shorter Lines and Less Staffing

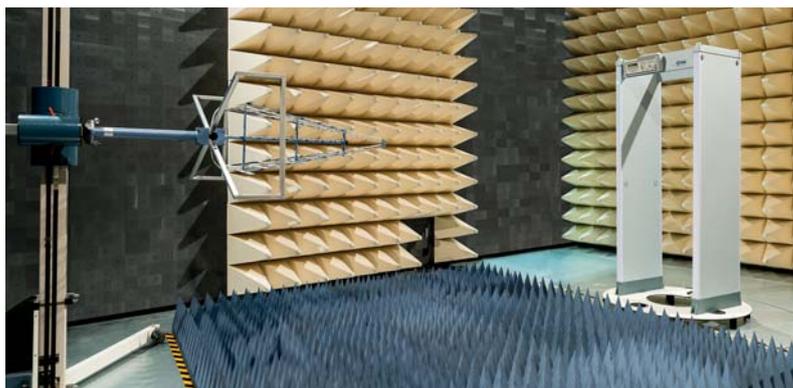


60 LOCALIZATION ZONES



60 PINPOINTING ZONES
(20 vertical x 3 lateral) with left, center and right indication.

IMMUNITY TO EXTERNAL INTERFERENCES



CERTIFIED EXCEPTIONAL IMMUNITY to environmental interferences makes the Metal Detector easy to use even when electrical noise is encountered

The O2PN20 has a **very low nuisance alarm rate even at the strictest Security Standards** requested today, and **therefore allows high transit flow rates** and the minimum need for intervention by inspection personnel.



MOST POWERFUL AND VERSATILE SECURITY FEATURES

- Up to 50 built-in Security Programs
 - ▶ Up to 30 International Standards
 - ▶ Up to 20 Customizable Levels

Setting the Security Levels could not be easier and more versatile than in the O2PN20.

Users can choose directly from the known International Standards or request implementation of a Standard personalized to their own requirements. Users can also create their own program and save it in internal memory for later use.



- Chip Card system for fast, simple and secure parameter changes (i.e. alarm volume and tone, counter reading, etc.) and security level selection.
- Any security standard can be enhanced with selectable random alarm probability

CHIP CARD SYSTEM

The system allows the Head of Security to **set Security Level quickly, reliably** and without having to program the device in any way.



Today, more than 8000 devices of the O2PN20 series (panels and columns) are installed and operating in airport and other high security applications worldwide.

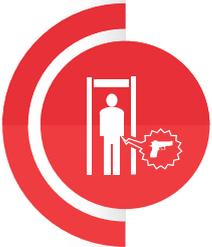
MI2 CELL PHONE DETECTION

The **02PN20 Elliptic** can be equipped or field upgraded for the screening of people in applications where **simultaneous detection of all metal (magnetic and non-magnetic) firearms and cellphone/smartphone devices**, including the most miniaturized, low-metal content versions, **is required along with high-throughput and a low nuisance alarm rate.**



CELL PHONES DETECTOR

- Detection of standard and micro cell phones and smartphones concealed on the person or in body cavities
- Detection of magnetic items - smartwatches, select headphones/earbuds
- Constant Sensitivity across the detection area in pass-through operations
- Multizone yellow signaling



METAL DETECTOR

- Simultaneous detection of all-metal weapons, including magnetic, non-magnetic and mixed alloy and light alloy threats
- High Throughput
- Detection of radiation shielding containers (Lead) containing radiological sources
- Multizone red signaling



RADIATION AND METAL DETECTION SYSTEM

The **02PN20**, as an option, can be equipped or field upgraded after the installation with a **high sensitivity array of gamma sensors**. This array covers the full height of the transit, allowing accurate detection of radioactive substances carried by people in transit.



RADIATION DETECTOR

- Detection of radioactive materials
- Embedded, high-sensitivity, full-height radiation sensors
- ANSI and IEC standards compliant
- Available options include:
 - ▶ Detection of all radioactive materials
 - ▶ Detection of all radioactive materials with identification of medical radionuclides
- Multizone blue signaling



METAL DETECTOR

- Simultaneous detection of all-metal weapons, including magnetic, non-magnetic and mixed alloy and light alloys threats
- High-Throughput
- Detection of radiation shielding containers (Lead) containing radiological sources
- Multizone red signaling

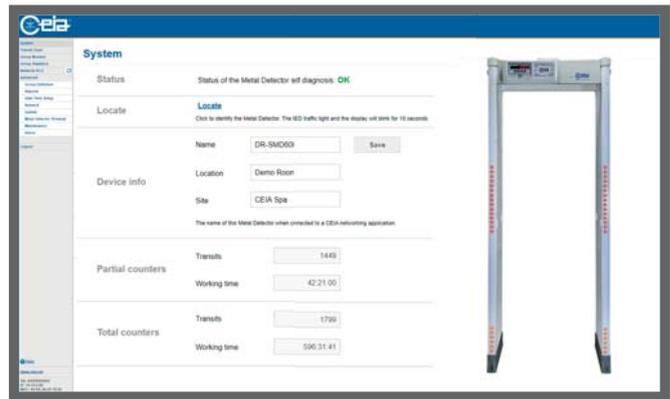


INTEGRATED WEB-SERVER & LOGGER (OPTIONAL)



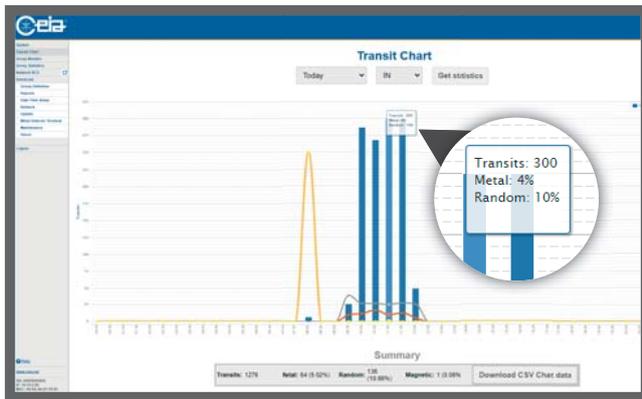
MONITOR

- Status monitoring of Metal Detector network in real time
- Centralized Setting of the Metal Detectors' working parameters
- Transits flow monitoring



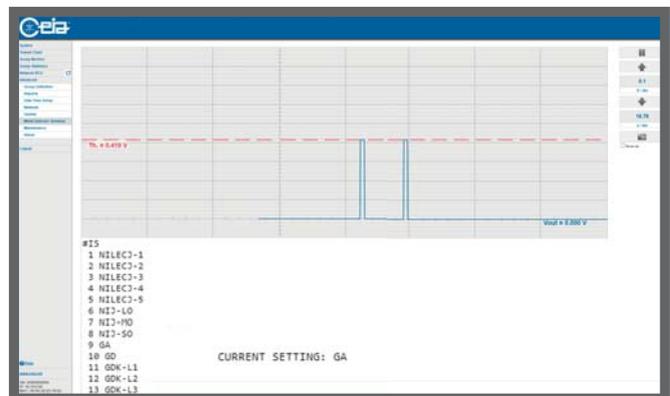
REPORT

- Automatic statistical reporting of people screened and alarm rates
- Detailed reporting of the transits data and of the Security Device configuration data



CONTROL

- Security level verification and signals remote control
- No server or specific client software required, only a web browser
- Zero configuration network for simple setup
- 2 x Ethernet 100base-TX



APSiM2 Plus, APSiM3 Plus

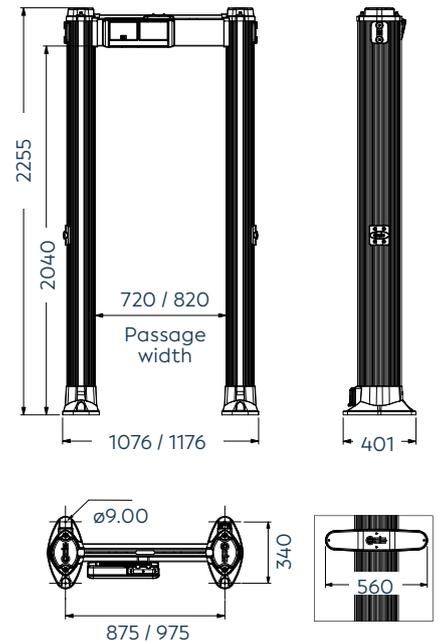
The APSiM2 Plus, APSiM3 Plus modules allow you to protect and manage your checkpoint better while saving labor hours in the process.

02PN20 MODEL SELECTION

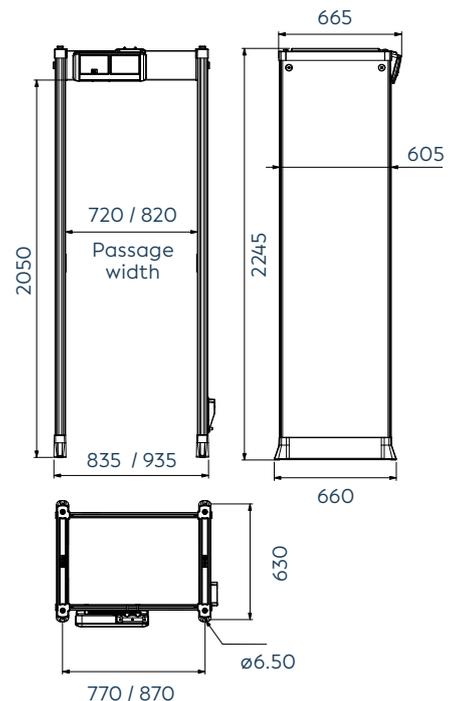
STANDARD CONFIGURATION	02PN20/EZ	02PN20/PZ
GATE - SHAPE	ELLIPTIC COLUMN	PANEL
Compliant with the strictest detection and discrimination standards for Enhanced Metal Detectors	•	•
4 display bars each programmable as zone indicators and/or pacing lights	•	•
60 localization zones (20 vertical x 3 lateral)	•	•
Specific Shoe Alarm color indication	•	•
Antivandalic and Antitampering IP66 Control Unit	•	•
Very high Precision Transit Counter (4-beam)	•	•
Chip Card Reader	•	•
BT, infrared and RS-232 communication	•	•
Programmable Random Alarm capability	•	•
Multi-level password and hardware key access protection	•	•
Met-Identity technology	•	•
OTS: One Touch Automatic Self Installation	•	•
OFV: Automatic Operational Functional Verification	•	•
AVS, EVA: Automatic Vibration Compensation	•	•
CS: Automatic Channel Search	•	•
FGA: Automatic Floor Gain Adjustment	•	•
TFV: Automatic Technical Functional Verification	•	•
ENA: Automatic Environmental Noise Compensation	•	•
Powered by safe low voltage DC	•	•
Anti-tamper on/off switch	•	•

DIMENSIONS (mm)

ELLIPTIC COLUMN



PANEL

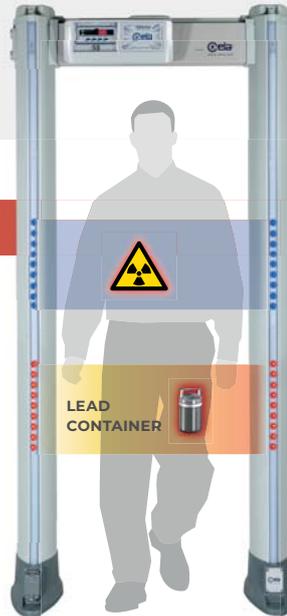


COMMUNICATION CAPABILITIES

TYPE OF OPERATION	ETHERNET	USB	INFRARED	BT	RS-232
MAINTENANCE	○	○		•	•
REMOTE CONTROL	○		•	•	•
REMOTE DATA COLLECTION	○				

STANDARD • OPTION ○

OPTIONS / ACCESSORIES



DESCRIPTION	P/N
<p>EMBEDDED RADIATION PORTAL for full height detection of radioactive materials</p> <p>The O2PN20 can be equipped or field upgraded after the installation with a high sensitivity array of gamma sensors. This array covers the full height of the transit, allowing accurate detection of radioactive substances carried by people in transit.</p>	<p>ELLIPTIC:</p> <ul style="list-style-type: none"> • 56108 [for radioactive substances] • 56806 [for radioactive substances with identification of medical radionuclides] <p>PANEL:</p> <ul style="list-style-type: none"> • 56123 [for radioactive substances] • 56808 [for radioactive substances with identification of medical radionuclides]

<p>MI2 SENSOR</p> <p>The O2PN20 Elliptic with integrated MI2 sensor provides unmatched versatility in its ability to screen people in applications that require simultaneous detection of all metal (magnetic and non-magnetic) firearms and cellphone/smartphone devices, including the most miniaturized, low-metal content versions.</p> <p>In this configuration both panels of the archway are equipped with dual color light bars (red and yellow colors) and 4-beam photocells modules.</p>	 <p>ELLIPTIC:</p> <ul style="list-style-type: none"> • 720 mm passage width: 132116 • 820 mm passage width: 132117
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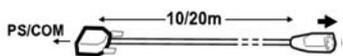
<p>IP65 CONFIGURATION WITH IP66 CONTROL UNIT</p> <p>Outdoor sheltered permanent or non-sheltered short-term installations (single event entrance).</p>	 <p>PANEL:</p> <ul style="list-style-type: none"> • 720 mm passage width: 138341 • 820 mm passage width: 138986
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<p>Upper protection cover: additional outdoor protection to further improve the IP65 protection rating</p>	 <p>ELLIPTIC:</p> <ul style="list-style-type: none"> • 720 mm passage width: 102713 • 820 mm passage width: 102714
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<p>EMBEDDED BATTERY BACK-UP AND CHARGER</p> <p>Lower Connection Module with anti-tamper on/off switch, RS-232 interface and internal battery back-up. The module provides an audible 'flat battery' signal activated when the battery charge goes below the operational limit of the device (signal endurance: about 12 hours).</p>	 <p>PANEL: APSM2Plus/P</p>
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<p>APSiM2 PLUS Integrated Web-server & Logger, Battery Back-up and Charger</p> <p>Lower Connection Module with anti-tamper on/off switch, RS-232 interface, internal battery back-up and the following functions:</p> <ul style="list-style-type: none"> ▶ Built-in 10/100 base T Ethernet LAN interface ▶ Web server for set-up and remote data log ▶ Real/Time clock with battery backup ▶ Non-volatile Memory for Metal Detector events storage 	 <p>PANEL: APSiM2Plus/P</p>  <p>ELLIPTIC: APSiM2Plus/E</p>
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OPTIONS / ACCESSORIES

DESCRIPTION		P/N
APSiM3 PLUS Wireless Network Module	Includes all features and characteristics of the APSiM2 Plus with additional: <ul style="list-style-type: none"> ▶ Wi-Fi communication capability ▶ Compatibility with NetID Management software [NetID software license not included] 	PANEL: APSiM3Plus/P ELLIPTIC: APSiM3Plus/E
CHIP CARD	Chip cards for simple and secure selection of Security Levels and parameter setting. List of chip-cards available on request.	
MD-WHK	Wireless repeater of acoustic indications for WTMDs. Bluetooth audio function to be requested at WTMD ordering time	 MD-WHK
CROSSBAR BATTERY BACK-UP	<ol style="list-style-type: none"> 1 Crossbar battery back-up in stainless steel case. Up to 10 h of autonomous working time. 2 Protection cover 	 PANEL: 55681 Protection cover: <ul style="list-style-type: none"> • 720 mm passage width: 75122 • 820 mm passage width: 75124
	The battery pack is embedded into the crossbar of the archway. Typical operating time in battery mode is 7 hours.	 ELLIPTIC: <ul style="list-style-type: none"> • 720 mm passage width: 74699B • 820 mm passage width: 89609
SUPPLY UNIT SERIES	<ol style="list-style-type: none"> 1 MBSU-2 2 TSU (Tactical supply unit) 	 MBSU-2
	Portable and compact battery back-up units and charger designed to supply DC voltage to CEIA equipment where mains is not available or as Uninterruptable Power Supply unit (UPS) in installations requiring continuous operations.	
	TYPICAL CONTINUOUS OPERATION <ul style="list-style-type: none"> • MBSU-2: 14 h • TSU: 4 [battery pack]: 12 h 6 [battery pack]: 17 h 8 [battery pack]: 23 h 	 TSU
RRU	Remote relay unit (RRU) to repeat the detection alarms of the gate through a relay contact. The RRU module can be used for integration of the Metal Detector in interlocked door systems. An additional relay is available for a customer-specified application.	RRU-2
IRC-1	Infrared Remote Controller for wireless remote programming of the control unit.	 47180
UPPER CONNECTION MODULE	This module along with an extension cable allows the connection of power supply and serial communication to personal computers or CEIA accessories.	 <ul style="list-style-type: none"> • 46650 • 180 mm: 89040 • 5 m: 95352
TOP POWER CABLE	This cable allows the AC/DC adapter to be connected to PS/COM port located on top of the TX antenna to supply the Metal Detector Gate.	 <ul style="list-style-type: none"> • 10 m: 64228 • 20 m: 68346

OPTIONS / ACCESSORIES



VISUAL ALARM WITH ZONE INDICATION

	DESCRIPTION	P/N
<p>RCU2</p>	<p>Control unit for full remote access, including alarm signalling and programming of CEIA Metal Detectors.</p> <p>The connection is performed via serial cable connection or via BT (option).</p>	 <p>RCU2</p>
<p>MD-SCOPE</p>	<p>Powerful, PC based installation and service Software. Includes oscilloscope and terminal functionality.</p> <p>The connection is performed via BT (standard) or via cable connection.</p>	 <p>MD-SCOPE2</p>
<p>WHEEL KIT - LONG RANGE</p>	<p>For heavy duty, longer range movement of the walk-through metal detector.</p> 	 <p>ELLIPTIC: 70569 PANEL: 70796</p>
<p>WHEEL KIT - SHORT RANGE</p>	<p>For short range movement of the walk-through metal detectors.</p> 	<p>ELLIPTIC: 77318 PANEL: 75459</p>
<p>ELLIPTIC GATE PROTECTIVE COVER</p>	<p>Protects the gate in permanent outdoor installations during periods of inactivity:</p> <ul style="list-style-type: none"> • Long life product, heavy duty material and construction, welded cloth, seamless • Foldable, small dimensions • Tear resistant • Easy to clean • Anti-vandalism deterrent • Anti-tampering - lockable <p>Open the link to see video: www.ceia.net/security/EllipticGateProtectiveCover.aspx?lan=us1</p>	 <p>ELLIPTIC: 64395</p> <p>ELLIPTIC GATE WITH PHOTOCELL ARMS: 76520</p>

OPTIONS / ACCESSORIES

	DESCRIPTION		P/N
INTEGRATED CAMERA SYSTEM	Video camera with support arm and connecting cables. Installation of the APSIM3 Plus module is required.		PANEL: 54253 ELLIPTIC: 56110
TDU Thermal Detection Unit	The TDU is an upgrade sensing kit for fast and cost effective screening operations: <ol style="list-style-type: none"> 1 Thermal Camera Arm 2 Dual Reference Calibration Unit 3 Transit counter (not needed if already installed on the gate) 		ELLIPTIC: • TDU/E 1 + 2 • 4-Beam Transit counter: 46983 3 PANEL: • TDU/P 1 + 2
METAL DETECTOR DIVESTING TABLE	In combination with CEIA Walk-Through Metal Detectors, it is a temporary location of personal metal effects for people to be screened: <ol style="list-style-type: none"> 1 Standard length: 610 mm 2 Extended length: 1200 mm 3 Outdoor version: 1300 mm 		STANDARD: 18074 EXTENDED: 39491 OUTDOOR: 67021
STABILIZING PLATES	Comfortable alternative to direct floor mounting for uneven floor and mobile applications: <ol style="list-style-type: none"> 1 Metal anchoring plate 2 Anti-tilting metal plate 		METAL ANCHORING PLATE: 64355 ANTI-TILTING METAL PLATE: 70914
TOOL-FREE ASSEMBLY KIT	This accessory allows the detector to be assembled and disassembled quickly and without tools.		ELLIPTIC: 55699
TEST SAMPLES KIT	Reference Samples for accurate verification of the Security Level. Includes guided procedures and certificate of calibration		EMD-SK-GAL EMD-SK-GDML
OFV	Operator Functionality Verification test-kit		OFV

SPECIFICATIONS

GATE STRUCTURE	Useful transit area [W x H]: 720 mm x 2050 mm [standard configuration] 820 mm x 2050 mm [wider passage width]
	Antivandalic and antitampering IP66 control unit
	Embedded high precision transit counters (4-beam photocells)
	Antitampering ON/OFF switch
	State-of-the-art, robust and washable panels or compact elliptical columns
	Protected against aging, weather and wear
OPERATIONAL FEATURES	High discrimination and transit flow rates five or more times greater than other metal detection systems
	Quick reset time as short as 0.2 seconds for high throughput rate
	Very high detection speed [up to 15 m/sec.]
	Built-in operational functional verification [OFV]
	One-touch key reading of inbound, outbound and Security Level Data
QUALITY	Continuous self diagnostic system
	Proven reliability
	No periodic re-calibration and preventive maintenance required
	No scheduled maintenance
ALARM SIGNALLING	Fully digital design
	Multi-zone display bar for "height on person" localization
	Specific shoe alarm color indication
	4 light bars with selectable entry/exit and pacing indication
	Green and red metering signals proportional to the mass of the detected target
	10 selectable continuous and pulsed tone plus 34 special tones
	10 selectable sound intensities ranging from 0 to 90 dbA at 1m
Random alarm capability with independent counters, alarm tone and alarm volume	
TYPE OF SIGNALLING	Met-Identity technology [separate Ferrous and Non-Ferrous alarm signalling]
	Fixed or proportional to the mass in transit - visible from 6m under lighting of 4000lux
	60 distinct zones [20 vertical x 3 lateral] entry and exit side
PROGRAMMING	Up to 50 built-in Security Programs
	Remote via Infrared Remote Control Unit, BT or Ethernet 10/100 base T [option] interface
	Security level: International Standard [IS] command / Chip card
	Local by Control Unit alphanumeric display and keyboard
INSTALLATION DATA	Programming and chip card access protected by user and super-user passwords
	Automatic synchronisation between two or more metal detectors with distance of down to 5 cm without the use of external cables
	One Touch Automatic Self Installation [OTS]

ENVIRONMENTAL DATA

- Powered by safe low voltage DC through external switching power supply adapter
- Power Supply: 100...277V- ±10%, 47...63Hz, 40 VA typical consumption
- Operating temperature: -20°C to +65°C (-37°C to +70°C upon request)
- Storage temperature: -37°C to +70°C
- Relative humidity: 0 to 95% (without condensation)

CERTIFICATION AND COMPLIANCE

- Compliant with and certified to the applicable Standards for Enhanced Metal Detectors (EMD)
- Compliant with all Airport Security Standards worldwide
- Compliant with the applicable electromagnetic Standards on Human Exposure and Pacemaker Safety
- Compliant with applicable International Standards for electrical safety and EMC

APPLICATIONS

- AIRPORTS
- GOVERNMENT BUILDINGS
- COURTS
- INDUSTRIES (SECURITY)
- NUCLEAR FACILITIES (SECURITY)
- SPECIAL EVENTS

COMPREHENSIVE SUPPORT

CEIA PROVIDES FULL OPERATIONAL AND TECHNICAL TRAINING SUPPORT BY CERTIFIED PERSONNEL EITHER AT CEIA FACILITY OR AT CUSTOMER SITE.



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