

PMD3 Plus

ENHANCED METAL DETECTOR FOR HIGH LEVEL APPLICATIONS



- Superior Detection and Throughput
- Compliant with and certified to the applicable Standards for Enhanced Metal Detectors
- Improved Detection, Discrimination, Spatial Resolution and Interference Immunity
- High Installation Adaptability in all Environments
- Integrated Camera System
- New mechanical structure with higher protection degree and easy replacement of internal mechanical and electronic parts
- Column and Panel versions

Applications

- ✓ Airports
- ✓ Government Buildings
- ✓ Industries [Security]
- ✓ Nuclear Facilities [Security]
- ✓ Public Events
- ✓ Courts



www.ceia.net

Threat Detection through Electromagnetics

CEIA reserves the right to make changes, at any moment and without notice, to the models (including programming), their accessories and options, to the prices and conditions of sale



PMD3 Plus

Enhanced Walk-Through Multi-Zone Metal Detector



The recent introduction of stringent Federal security standards has prompted CEIA to release a series of walkthrough **metal detectors expressly designed for high level applications.**

These metal detectors look similar to other models in CEIA's product offering, but feature a combination of advanced target detection and state of the art personal object discrimination.

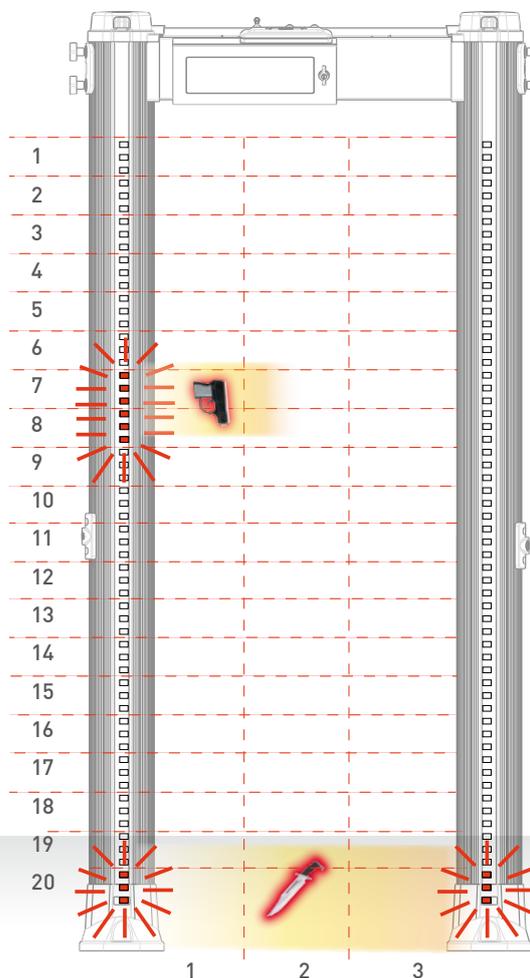
Highlights of the System

✓ Detection capability

- Quick, accurate analysis of all parts of the body of people in transit, from the shoe level to the crossbar
- Accurate detection of threat objects composed of magnetic, non-magnetic and mixed alloys
- Met-Identity technology for Identification of Threat Composition
- 60 pinpointing zones with high resolution & precision: • 20 Vertical • 3 Lateral

✓ Networking capabilities

- Integrated Web server
- Extended communication capabilities, Data Networking for alarm and status supervision through wireless network (Wi-Fi IEEE 802.11 b/g)
- Automatic monitoring of the auto-diagnostics, battery level and security level of the installed PMD3 Plus group
- Visual representation of the transits flow



60 LOCALIZATION ZONES

With left, center and right indication.

Benefits

- Significant increase in throughput, resulting in substantial reductions in passenger wait times
- Cutting edge discrimination technology allows personal effects to be ignored, creating rapid transit flow
- Offers peace of mind with more stringent security levels while maintaining an improved flow rate
- Improved zone detection allowing pinpoint accuracy of alarm indication
- Double light bar design gives more visible zone indication from multiple screener positions



✦ MET-IDENTITY TECHNOLOGY

With Met-Identity technology, the PMD3 Plus allows you to know where, how much and what type of metal is being brought into the secure area.



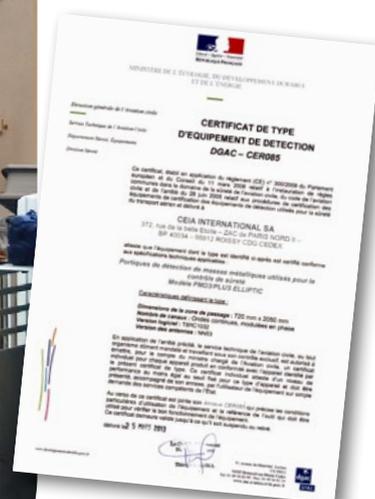
➤ Ferrous Metal

➤ Non Ferrous Metal



COMPLIANT WITH AND CERTIFIED

The PMD3 Plus has been STAC certified and, today, more than 6500 devices of this series (panels and columns) are installed and operating in airport and other high security applications worldwide.





Unique Alarm Signaling



- 4 Multi-Zone Display Bars, each programmable as entry Stop/Go and/or local alarm indication
- High visibility of the control unit and the zone indication independent from the operator position and the installation environment

Accurate signaling is essential for best operation and flow management. The PMD3 Plus provides the user with fully-programmable signaling. Both entry-points can indicate with a high level of accuracy, even simultaneously, the vertical and lateral areas of transit of the threats detected, and can also be configured as 'traffic lights' to control transits through the detector.



4 MULTI-ZONE DISPLAY BARS

Light bars indicate metal position vertically and laterally and can also show pacing lights.



- Flexible Acoustic Alarm Signaling System:
 - ✓ 10 Continuous and Pulsed Tones
 - ✓ 34 Special Sounds
- 10 Acoustic Intensity Levels

A complete acoustic alarm system allows personalization of the alarm tones and intensities, with a wide choice of continuous, pulsed and special tones at different levels of intensity. The wide volume control dynamic allows operation even in very noisy environments.



4-BEAM VERY HIGH PRECISION TRANSIT COUNTER



- Very High Precision Transit Counter:
 - ✓ In-Bound Transits
 - ✓ Out-Bound Transits
 - ✓ Alarm Rate
 - ✓ Automatic Compensation for repeated transits of the same person

The Metal Detector provides an automatic count of the people passing through the access point in both directions and the related nuisance alarm percentage.

Unmatched Throughput



- Cutting-edge discrimination technology allows personal effects to be ignored, creating rapid transit flow

The transit volume magnetic scanning system, invented by CEIA and applied since production of the first zonal Metal Detectors in 1986, allows state-of-the-art detection and discrimination results.

The PMD3 Plus has an extremely low nuisance alarm rate even at the strictest Security Levels requested today, and therefore allows high transit flow rates and the minimum need for intervention by inspection personnel.

ALARM



NO ALARM



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 PMD3 Plus. 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 work program and save it in internal memory provided for the purpose.



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

Chip Card for automatic selection of Security Levels and parameter changes.

Extended Communication Capabilities

Extended communication capabilities including data networking for alarm and status supervision through wireless TCP/IP. The **PMD3 Plus** can be fitted with the **APSiM3 Plus** Wireless Network Module.

TYPE OF OPERATION	Ethernet	Wi-Fi	Infrared	Bluetooth
Maintenance	○	○		■
Remote Control	○	○	■	■
Remote Data collection	○	○		

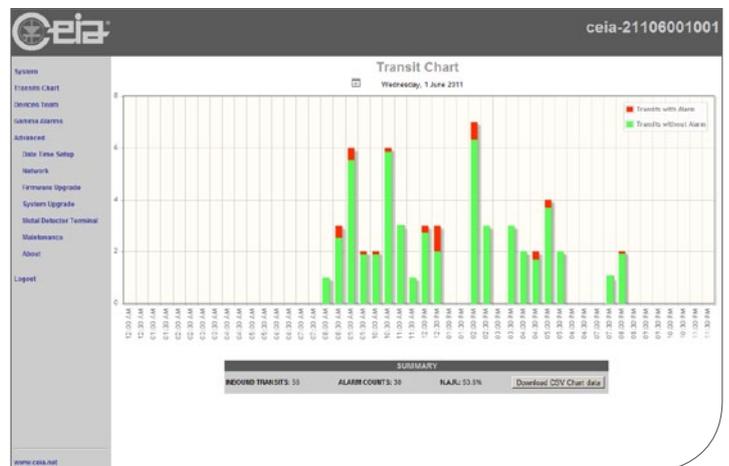
■ STANDARD ○ OPTION

- Bluetooth
- Wi-Fi local area network
- Web-Browser
- Network management

The APSiM3 Plus integrates a secure web server and WiFi infrastructure using state of the art SSL and WPA2 security protocols. The APSiM3 Plus can act both as a WiFi client and WiFi access point allowing to set up a local secure wireless network without requiring additional devices. The wireless network covers a 100 m wide area on open site conditions.

Any authorized device capable of wireless connectivity and https browsing (such as tablet pc, smart phones and laptops) can access the following functionalities:

- Automatic monitoring of the auto-diagnostics, battery level and security level of the installed PMD3 Plus group.
- Visual representation of the transits flow through the PMD3 Plus. The transits data is stored in the APSiM3 Plus for up one year and can be downloaded through date selection.



➤ **Visual representation of the transits flow through the PMD3 Plus**

PMD3 Plus

Enhanced Walk-Through Multi-Zone Metal Detector



Model Configuration

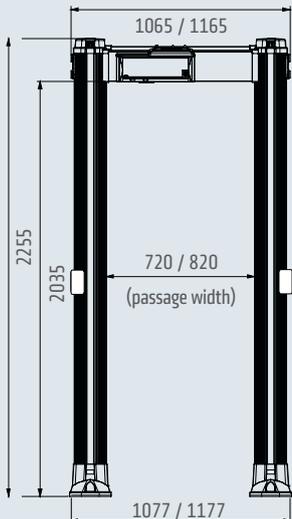
Features	PMD3/EZ Plus Elliptic column	PMD3/PZ Plus Panel
4 display bars each programmable as zone indicators and/or pacing lights	■	■
60 localization zones (20 vertical x 3 lateral) with left, center and right indication	■	■
Chip Card Reader	■	■
Bluetooth and infrared communication	■	■
Programmable Random Alarm capability	■	■
3-Level Password and hardware key access protection	■	■
Met-Identity technology (separate Ferrous and Non-Ferrous alarm signaling)	■	■
One Touch Automatic Self Installation (OTS)	■	■
Automatic Operational Functional Verification (OFV)	■	■
Automatic Vibration Compensation (AVS, EVA)	■	■
Automatic Channel Search (CS)	■	■
Automatic Floor Gain Adjustment (FGA)	■	■
Automatic Technical Functional Verification (TFV)	■	■
Automatic Environmental Noise Compensation (ENA)	■	■
Powered by safe low voltage DC	■	■
Anti-tamper on/off switch	■	■
Very High precision transit counter (4-beam)	■	■
Integrated video camera with MDAR software	○	○
Weather resistant protection	○	○
Anti-vandalism, anti-tampering protection	○	○
IP65 protection (includes weather resistant and anti-vandalism options)	○	○
Integrated web-server & logger (includes Ethernet and USB interface)	○	○
820 mm useful passage width	○	○



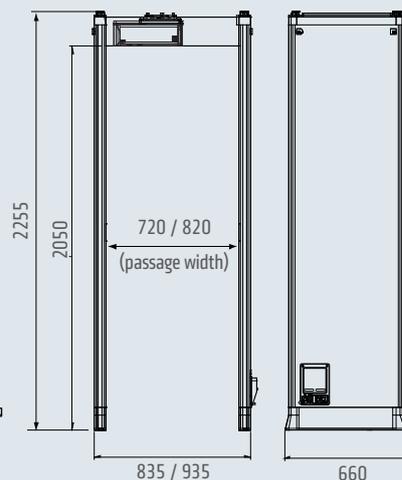
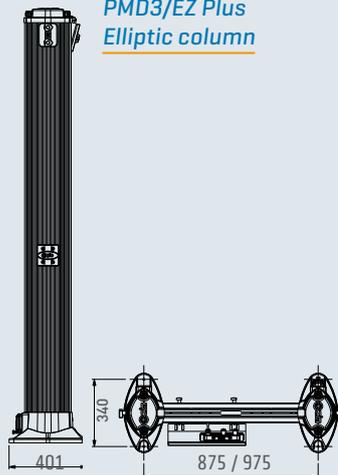
➤ Easier flow control through pacing lights

■ STANDARD ○ OPTION

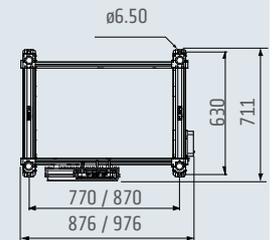
Dimensions [mm]



PMD3/EZ Plus
Elliptic column



PMD3/PZ Plus
Panel



Integrated Camera System with MDAR software [option]



 MDAR, video recorder and instant alarm player

Ordering Information

Panel: part # 54253

Elliptic: part # 56110

This option requires the installation of the **APSiM3 Plus** integrated web-server & logger.

- Centralized checkpoint monitoring and recording of all transits
- Real-time acquisition of transit images and streaming videos
- Automatic review of the last transit with alarm, including source and strength details

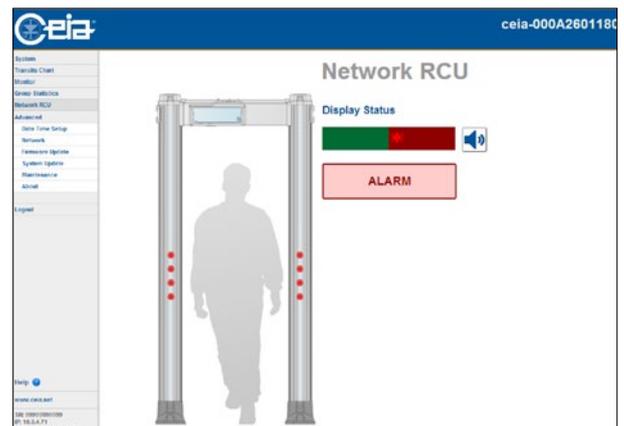
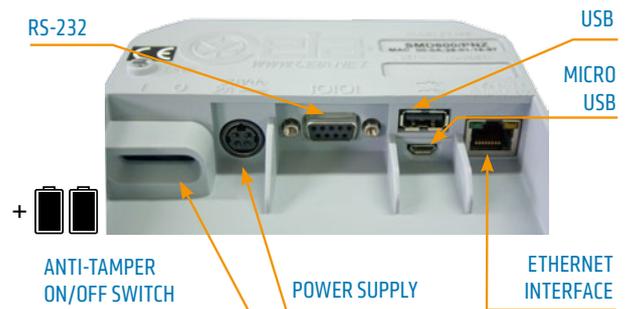
APSiM3Plus Integrated Web-server & Logger [option]

- Monitor the status of Metal Detector network in real time
- Remotely control and verify the security level
- Report on number of people screened and alarm rates automatically
- No server or specialized client software required, only a web browser
- Zero configuration network for simple setup
- 2 x Ethernet 100base-TX
- Wi-Fi - 802.11 b/g

Ordering Information

Panel: part # APSiM3Plus/P

Elliptic: part # APSiM3Plus/E



Remote Control and Visualization 

PMD3 Plus

Enhanced Walk-Through Multi-Zone Metal Detector



Additional Options and Upgrade Kits

Weather Resistant Protection

Kit for upgrading the standard version to outdoor applications according to IEC 60950-22; this kit includes shelters, crossbars, protection covers for power supply and IP67 mains power supply adapter.

PANEL

- 720 mm passage width (part # 55630)
- 820 mm passage width (part # 55633)

ELLIPTIC

- 720 mm passage width (part # 55657)
- 820 mm passage width (part # 55658)



Anti-vandalism, Anti-tampering Protection

This option includes stainless steel control unit, IP67 mains power supply adapter, protection covers for power supply and antenna connection compartments, equipped with screws requiring tools for removal.

PANEL: part # 55629



ELLIPTIC: part # 55659



IP65 Protection

This option includes the Weather Resistant and Anti-vandalism kits.

PANEL

- 720 mm passage width (part # 55631);
- 820 mm passage width (part # 55632)

ELLIPTIC

- 720 mm passage width (part # 55660)
- 820 mm passage width (part # 55661)

820 mm Useful Passage Width

Part # 55635

Long life crossbar battery back-up

Crossbar battery back-up in stainless steel case. Provides up to 7 hours of autonomous working time.

Part # 55681



Embedded Battery Charger and Under-voltage Protection

Anti-tamper on/off switch, RS-232 interface, battery charger with 12 hours mains disconnection diagnostic alarm.

Part # APSM2Plus/P



Accessories

➤ Chip Cards

Chip cards for simple and secure selection of Security Levels and parameter setting. List of chip-cards available on request.

➤ MBSU-2

Independent, compact size, long life power supply in weatherproof stainless steel case, with embedded fast charger:

- 12 hours typical (6 hours minimum) continuous operation with PMD3 Plus
- 5 hours typical charging time.

Part # MBSU-2



➤ RCU2

Control unit for full remote access, including alarm signalling and programming of CEIA Metal Detectors. Part # RCU2



VISUAL ALARM WITH ZONE INDICATION

➤ MD-Scope

Powerful, PC based installation and service Software. Includes oscilloscope and terminal functionality. Part # MD-SCOPE2



➤ IRC-1

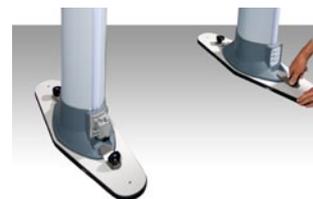
Infrared Remote Controller for wireless remote programming of the control unit. Part # 47180



➤ Stabilizing Plates (elliptic version)

Comfortable alternative to direct floor mounting.

- Standard version: part # 46705
- Outdoor version: part # 46706
- For uneven floor and mobile applications: part # 46938



➤ Upper Connection Module

This extension cable allows the connection of power supply and serial communication to personal computers or CEIA accessories, such as RCU-2. Part # 46650

➤ 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. Part # RRU

➤ Tool-free assembly kit (elliptic version)

This accessory allows the detector to be assembled and disassembled quickly and without tools. Part # 55699



➤ Waterproof Mains Power Supply

100W IP67 power supply for outdoor applications.

It is provided with flanges for simple installation. Part # 43564

➤ ID-Holder (panel version)

This accessory is designed to be hung on a crossbar of the archway, either at the entrance or the exit side. It can hold, for instance, a notice or an ID number for waiting people or for the screener.

Part # 54095



➤ Stainless Steel Deck Dolly (panel version) for local moving of the panel metal detector gate

- Robust construction in AISI 316L stainless steel
- Rubber-covered castor-type wheels for easy movement
- Incorporated handles for transport

(available only for 720 useful passage width: part # 50789)



➤ Metal Detector Divesting Table for management of personal metal belongings

- Standard length: 610 mm (Part # 18074)
- Extended length: 1200 mm (Part # 39491)



➤ Test Samples Kit

Reference Samples for accurate verification of the Security Level. Includes guided procedures and certificate of calibration.

Part # EMD-SK-GAL

Part # EMD-SK-GDML





Specifications

KEY FEATURES

Wide range of threat detection from guns to 1/2 cutter blade	Automatic Environmental Noise Compensation (ENA)
Excellent discrimination of personal metal effects	Met-Identity technology identifies and signals the metal type in real time
60 localization zones (20 vertical x 3 lateral) with left, center and right indication	High precision bidirectional counter with automatic rescreening compensation
One touch automatic self installation (OTS)	Chip Card capability for fast, simple, and secure programming
Automatic Operational Functional Verification (OFV)	Random alarm capability programmable from 0% to 100%
Automatic Vibration Compensation (AVS,EVA)	Exceptional Immunity to external interferences
Automatic Channel Search (CS)	Powered by safe low voltage DC
Automatic Floor Gain Adjustment (FGA)	Standard Interfaces: Bluetooth, Infrared
Automatic Technical Functional Verification (TFV)	Other available interfaces: Ethernet, USB

QUALITY

Continuous self diagnostic system
Proven reliability
No periodic re-calibration and preventive maintenance required
No scheduled maintenance
Fully digital design

WALK-THROUGH GATE STRUCTURE

State-of-the-art, robust and washable panels or compact elliptical columns
Protected against aging, weather and wear

CENTRAL CONTROL UNIT

Ergonomic and robust design
High visibility alphanumeric display and programming keyboard
Made of advanced plastics or stainless steel and anti-vandalism construction (option)
Access to the front panel protected by hardware key and 3 levels of passwords

ALARM SIGNALING

VISUAL SIGNALS	Multi-zone display bar for "height on person" localization
	4 light bars with selectable entry/exit and pacing indication
	Green and red metering signals proportional to the mass of the detected target
AUDIO SIGNALS	10 selectable continuous and pulsed tone plus 34 special tones
	10 selectable sound intensities ranging from 0 to 90 dBa at 1m

TYPE OF SIGNALING

VISUAL	Fixed or proportional to the mass in transit - visible from 6m under lighting of 4000lux
VISUAL ZONE INDICATION	60 distinct zones (20 vertical x 3 lateral) entry and exit side

PROGRAMMING

Over 40 built in security programs	
Remote via Infrared Remote Control Unit, Bluetooth™ or Ethernet 10/100 base T (option) interface	
SECURITY LEVEL	International Standard (IS) command
	Chip card
Local by Control Unit alphanumeric display and keyboard	
Programming and chip card access protected by user and super-user passwords	

OPERATIONAL FEATURES

Very 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
One-touch key reading of inbound, outbound and Security Level Data

INSTALLATION DATA

Automatic synchronisation between two or more metal detectors with distance of down to 5 cm without the use of external cables
Automatic Installation function (OTS)

Environmental Data

- POWER SUPPLY : 100...240V~ -10/+15%, 47...63Hz, 65 VA
- OPERATING TEMPERATURE: -20°C to +70°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 the applicable Standards for Enhanced Metal Detectors
- 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
- Harmless to magnetic media (floppy disks, tapes, etc.)

Comprehensive support

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

- phone technical support
- in-house and on-site repair/services
- standard and custom training

