SMD600 Plus

ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR

NIJ-0601.02 Compliant

Certified by Governmental Laboratories*

HIGH SENSITIVITY

Fully compliant with the **NIJ-0601.02** Law Enforcement Standard

HIGH DISCRIMINATION

Compliant with and Certified to the strictest Standards for Airport security screening

The SMD600 Plus is *the first Metal Detector in the market fully* ***compliant with the NIJ-0601.02*** *Standard, as required in* ***very high sensitivity applications****, which also* ***allows very high throughput*** *in high security public screening checkpoints.*

**Data available upon request*

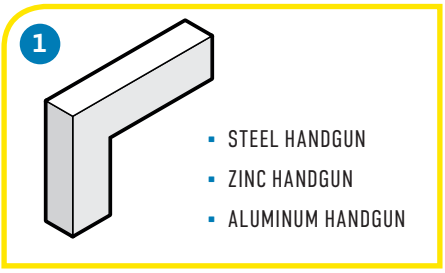
FULLY COMPLIANT WITH THE **NIJ-0601.02 STANDARD**

The Standard establishes the requirements of Sensitivity, Discrimination and Immunity for Law Enforcement and Correctional Facilities.

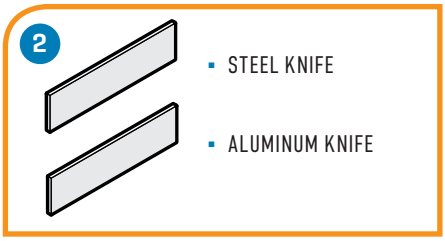
NIJ-0601.02 FULL COMPLIANCE

The ***SMD600 Plus*** **Metal Detector fully complies with the requirements of the NIJ0601.02 Standard** for all Security Levels, and can therefore be applied in situations from the inspection of visitors to that of inmates **in top-security checkpoints, even in areas with strong electrical and mechanical interferences**.

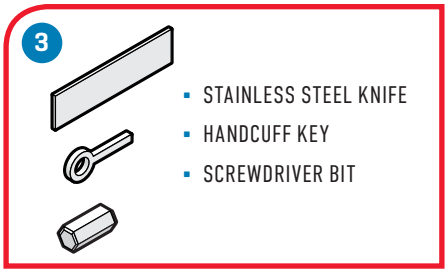
3 LEVEL OF SECURITY



LO LEVEL: LARGE OBJECT SIZE

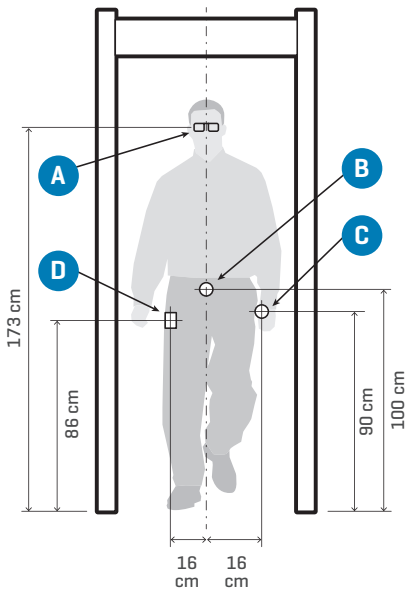


MO LEVEL: MEDIUM OBJECT SIZE



SO LEVEL: SMALL OBJECT SIZE

INNOCUOUS ITEMS



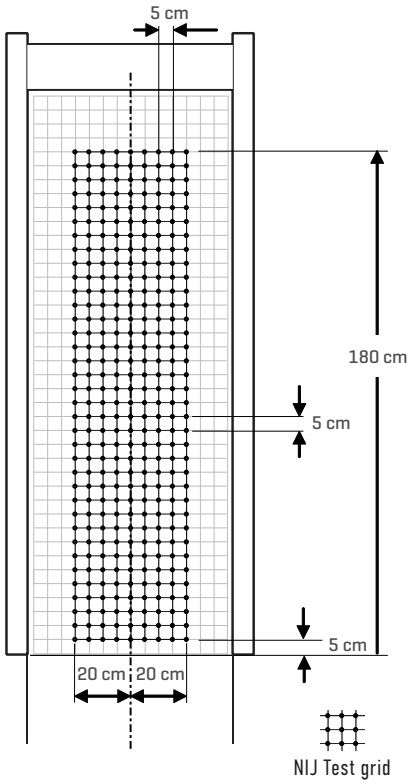
DISCRIMINATION TEST

Clean tester shall carry the innocuous items specified, performing the specified number of transits, walking at normal speed (0,5...1,5 m/s). Ensure that the Metal Detector will trigger less than the indicated number of alarms:

LO 25 transits with A + B + C + D (max 5 alarms)
MO 25 transits with A + B (max 5 alarms)
SO 8 transits with no items (no alarms allowed)

A Eyeglasses
B Belt buckle
C Watch
D Set of coins

TEST POSITIONS



DETECTION TEST OBJECT TRANSITS

Perform, for each Test Object, two passages, one forward and the other backwards, for each position and for each orientation, verifying that for every transit an alarm is triggered.

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

TWO-IN-ONE *ENHANCED METAL DETECTOR*

The SMD600 Plus is a very high sensitivity Metal Detector that also offers characteristics of high discrimination and high detection uniformity.

VERY HIGH SENSITIVITY

- Quick, accurate analysis of all parts of the body of people in transit, from the shoe level to the crossbar
- Accurate pinpointing of individual and multiple metal targets

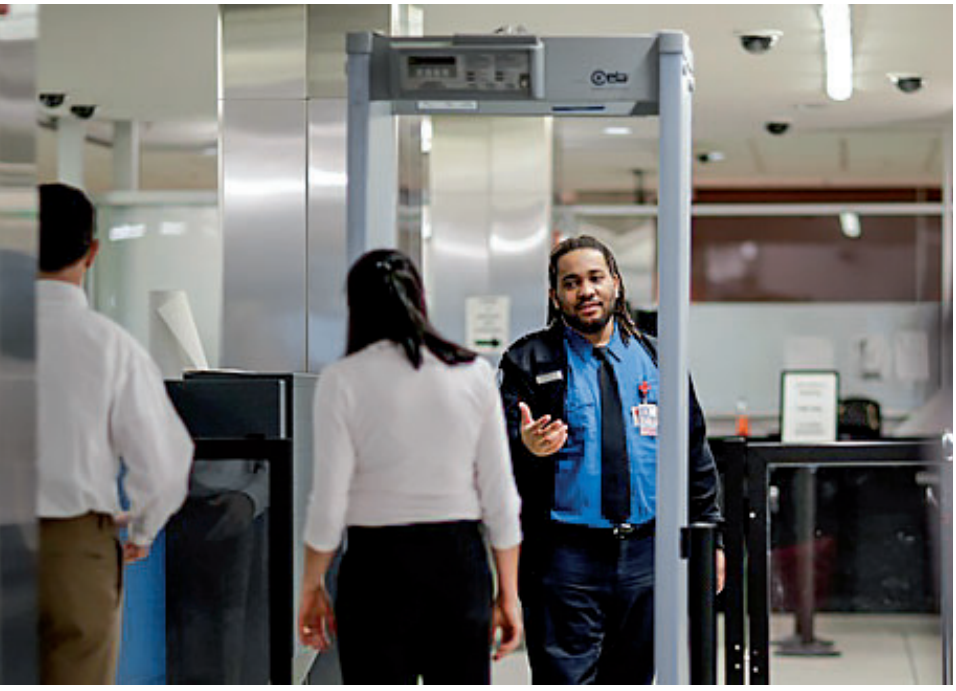
  A full-height light bar displays the location of the detected metal masses in transit. This results in **rapid identification of threats** and a reduction or elimination of the need for manual searches.
- Built-in programs to screen visitors and staff for weapons and contraband

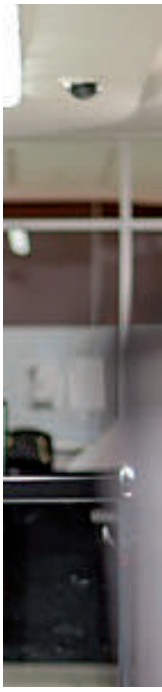
VERY HIGH THROUGHPUT

- 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 *SMD600 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.





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UNIQUE ALARM SIGNALING

PROGRAMMABLE DISPLAY BARS

- 4 Multi-Zone Display Bars, each programmable as entry Stop/Go and/or local alarm indication

Accurate signaling is essential for best operation and flow management. The *SMD600 Plus* provides the user with fully-programmable signaling. Both entry-points can indicate with a high level of accuracy, even simultaneously, the areas of transit of the threats detected, and can also be configured as 'traffic lights' to control transits through the detector.

- Flexible Acoustic Alarm Signaling System:
  - ‣ 10 Continuous and Pulsed Tones
  - ‣ 34 Special Sounds

INTENSITY LEVELS

- 10 Alarm Volume Levels

A complete acoustic alarm system allows personalization of the alarm tones and volume, 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.

HIGH PRECISION TRANSIT COUNTER

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

- *In-Bound Transits*
- *Out-Bound Transits*
- *Alarm Rate*
- *Automatic Compensation for repeated transits of the same person*

MOST POWERFUL AND VERSATILE SECURITY FEATURES

SECURITY LEVELS

- 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 *SMD600 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

- 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.

COMMUNICATION CAPABILITIES

TYPE OF OPERATION	ETHERNET	USB	INFRARED	BLUETOOTH	RS-232
Maintenance	○	○		•	•
Remote Control	○		•	•	•
Remote Data collection	○				

STANDARD • OPTION ○

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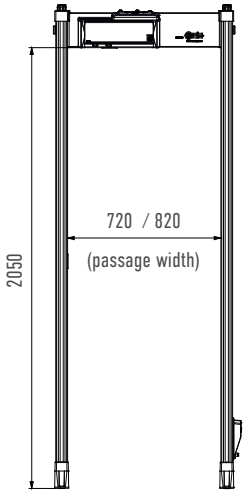
SMD600 PLUS/PZ *MODEL CONFIGURATION*

Fully compliant with, and exceeding, the NIJ-0601.02 Standard	•
4 display bars each programmable as zone indicators and/or pacing lights	•
Dual Side 20 x 2 localization zones	•
High precision transit counter (2-beam)	•
Chip Card Reader	•
Bluetooth, infrared and RS-232 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	•
Integrated web-server & logger (includes Ethernet and USB interface)	○
Weather resistant protection	○
Anti-vandalism, anti-tampering protection (with IP65 control unit)	○
IP65 protection (IP65 control unit, IP68 power supply adapter, anti-vandalism protections, weatherproof gate structure, compliant with IEC 60950-22)	○
Embedded battery charger and under-voltage protection	○
Long life crossbar battery back-up	○
820 mm useful passage width	○
Very High precision transit counter (4-beam)	○

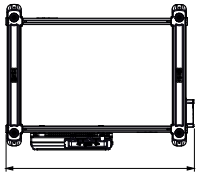
STANDARD • OPTION ○

DIMENSIONS (mm)

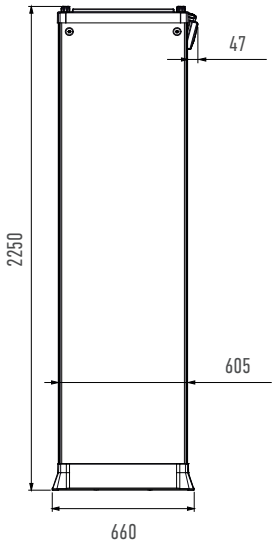
FRONT



TOP



LATERAL



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OPTIONS / 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 waterproof mains power supply adapter.

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

ANTI-VANDALISM, ANTI-TAMPERING PROTECTION

This option includes stainless steel control unit, IP68 mains power supply adapter, protection covers for power supply and antenna connection compartments, equipped with screws requiring tools for removal.

Part # 55629

IP65 PROTECTION

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

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

820 mm USEFUL PASSAGE WIDTH

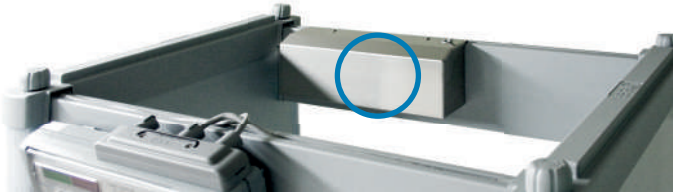
Part # 55635

LONG LIFE CROSSBAR BATTERY BACK-UP

Crossbar battery back-up in stainless steel case.

- Up to 8 h of autonomous working time

Part # 55681



EMBEDDED BATTERY CHARGER AND UNDER-VOLTAGE PROTECTION

Advanced power supply module with anti-tamper on/off switch, RS-232 interface, internal battery back-up and 12 hours mains disconnection diagnostic alarm.

Part # APSM2Plus/P

INTEGRATED WEB-SERVER & LOGGER, BATTERY BACK-UP AND CHARGER

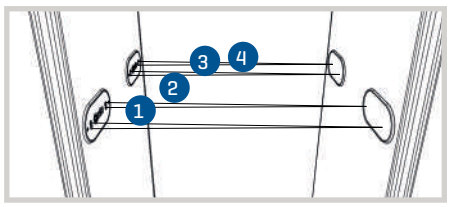
Anti-tamper on/off switch, RS-232, USB, 10/100 baseT Ethernet interface, data logger, real-time clock, integrated web-server, transit statistical data analysis, 20' internal battery back-up with 12 hours mains disconnection diagnostic alarm.

Part # APSiM2Plus/P

VERY HIGH PRECISION TRANSIT COUNTER

Four photocells fitted into the archway allow counting of transits, alarms and percentage of alarms. The 4-beam version further increases accuracy in counting and determination of transit direction, even in intense transit conditions.

Part # 46112



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ACCESSORIES

CHIP CARDS

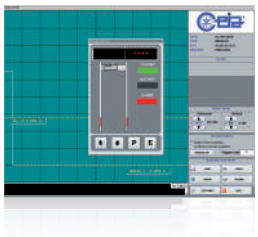
Chip cards for simple and secure selection of Security Levels and parameter setting.

List of chip-cards available on request.

MD-SCOPE

Powerful, PC based installation and service Software. Includes oscilloscope and terminal functionality.

Part # MD-SCOPE2



MBSU-2

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

- 15 hours typical (9 hours minimum) continuous operation with SMD600 Plus
- 7 hours typical charging time.

Part # MBSU-2

H 205 mm
D 425 mm
W 138 mm

RCU2

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

Part # RCU2

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

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.

- Standard length: 610 mm (Part # 18074)
- Extended length: 1200 mm (Part # 39491)
- Outdoor version: 1300 mm (Part # 67021U)

IRC-1

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

Part # 47180

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-0003

REFERENCE TEST SAMPLES

CEIA provides certified Test Samples reproducing for shape, material and signal on WTMDs the same effect of the reference targets

- Part # NIJ-0601.02-SKN: complete test samples kit for NIJ-0601.02 detection and discrimination compliance verification
- Part # 63744: test samples kit for NIJ-0601.02 MO and SO classes detection capability verification
- Part # EMD-SK-GDML: reference samples for accurate verification of the disassembled guns Security Level

WATERPROOF MAINS POWER SUPPLY

IP68 power supply for outdoor applications. It is provided with flanges for simple installation.

Part # 64610

NIJ-0601.02-SKN

63744

EMD-SK-GDML

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SPECIFICATIONS

KEY FEATURES	Very High Sensitivity	
	Excellent discrimination of personal metal effects	
	Fully compliant with, and exceeding, the NIJ-0601.02 Standard	
	Very high throughput in high security public screening checkpoints	
	Met-Identity technology identifies and signals the metal type in real time	
	Exceptional Immunity to external interferences	
	High precision bidirectional counter with automatic rescreening compensation	
	Random alarm capability programmable from 0% to 100%	
	Chip Card capability for fast, simple, and secure programming	
	Standard Interfaces: RS-232, Bluetooth, Infrared. Other available interfaces: Wi-Fi, 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	
	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	20 x4 distinct zones (20x2 entry side and 20x2 exit side)
PROGRAMMING	Up to 50 built-in security programs (up to 30 International Standards, up to 20 Customizable Levels)	
	Remote via RS-232, 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	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 and technical 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 as close as 30 cm without the use of external cables	
	Built-in floor sensitivity adjustment function	
	Automatic Installation function (OTS)	

APPLICATIONS

- ☑ *AIRPORTS*
- ☑ *GOVERNMENT BUILDINGS*
- ☑ *INDUSTRIES (SECURITY)*
- ☑ *NUCLEAR FACILITIES (SECURITY)*
- ☑ *PUBLIC EVENTS*
- ☑ *COURTS*

ENVIRONMENTAL DATA

- 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

- Complies with the applicable Standards for Law Enforcement and Correctional Facilities
- Fully compliant with the NIJ-0601.02 Standard requirements
- Compliant with and certified to the applicable Standards for Enhanced Metal Detectors (EMD)
- 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 (CD, tapes, etc.)

COMPREHENSIVE SUPPORT

- CEIA provides full operational and technical training support by certified personnel either at CEIA facility or at customer location

COSTRUZIONI ELETTRONICHE INDUSTRIALI AUTOMATISMI
Zona Industriale 54, 52041 Viciomaggio - Arezzo (ITALY)
Tel.: +39 0575 4181 ▪ Fax: +39 0575 418298 ▪ E-mail: infosecurity@ceia-spa.com

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