SMD600 Plus

VERY HIGH PERFORMANCE ENHANCED METAL DETECTOR

TWO-IN-ONE METAL DETECTOR
- Fully compliant with the NIJ-0601.02 Law Enforcement Standard
- Very high discrimination and high throughput for public screening

FEATURES
- Accurate Pinpointing of individual and multiple metal targets
- Exceptional Immunity to external interferences
- Unmatched Reliability
- Rapid Installation

Applications
- Correctional Facilities
- Law Enforcement
- Government Buildings
- Airports
- Industries (Security)
- Nuclear Facilities (Security)
- Hospitals (MRI)
- Data Processing Centers

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.
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.

Fully compliant with the NIJ-0601.02 Standard

- The Standard establishes the requirements of Sensitivity, Discrimination and Immunity for Law Enforcement and Correctional Facilities. The Standard defines 3 levels of security:
  1. LO Level (Large Object Size)
  2. MO Level (Medium Object Size)
  3. SO Level (Small Object Size)

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 levels of security

Innocuous Items

Test Positions

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)

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.

A Eyeglasses
B Belt buckle
C Watch
D Set of coins
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.

- Quick, accurate analysis of all parts of the body of people in transit, from the shoe level to the crossbar
- Very 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.

SMD600 Plus detects even the smallest metal items anywhere on and in the body.

ALARM

NO ALARM
Unique Alarm Signaling

- **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

- **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.

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 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 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**

Communication Capabilities

<table>
<thead>
<tr>
<th>TYPE OF OPERATION</th>
<th>Ethernet</th>
<th>USB</th>
<th>Infrared</th>
<th>Bluetooth</th>
<th>RS-232</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>♦</td>
<td>♦</td>
<td></td>
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<tr>
<td>Remote Control</td>
<td>♦</td>
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<tr>
<td>Remote Data collection</td>
<td></td>
<td>♦</td>
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</tbody>
</table>

**Chip Card System**

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

<table>
<thead>
<tr>
<th>Features</th>
<th>SMD600/PZ Plus</th>
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</thead>
<tbody>
<tr>
<td>Fully compliant with, and exceeding, the NIJ-0601.02 Standard</td>
<td>■</td>
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<tr>
<td>Very high throughput in high security public screening checkpoints</td>
<td>■</td>
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<tr>
<td>4 display bars each programmable as zone indicators and/or pacing lights</td>
<td>■</td>
</tr>
<tr>
<td>Dual Side 20 x 2 localization zones</td>
<td>■</td>
</tr>
<tr>
<td>High precision transit counter (2-beam)</td>
<td>■</td>
</tr>
<tr>
<td>Chip Card Reader</td>
<td>■</td>
</tr>
<tr>
<td>Bluetooth, infrared and RS-232 communication</td>
<td>■</td>
</tr>
<tr>
<td>Programmable Random Alarm capability</td>
<td>■</td>
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<tr>
<td>3-Level Password and hardware key access protection</td>
<td>■</td>
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<tr>
<td>Met-Identity technology (separate Ferrous and Non-Ferrous alarm signaling)</td>
<td>■</td>
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<tr>
<td>One Touch Automatic Self Installation (OTS)</td>
<td>■</td>
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<tr>
<td>Automatic Operational Functional Verification (OFV)</td>
<td>■</td>
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<tr>
<td>Automatic Vibration Compensation (AVS, EVA)</td>
<td>■</td>
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<tr>
<td>Automatic Channel Search (CS)</td>
<td>■</td>
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<tr>
<td>Automatic Floor Gain Adjustment (FGA)</td>
<td>■</td>
</tr>
<tr>
<td>Automatic Technical Functional Verification (TFV)</td>
<td>■</td>
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<tr>
<td>Automatic Environmental Noise Compensation (ENA)</td>
<td>■</td>
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<tr>
<td>Powered by safe low voltage DC</td>
<td>■</td>
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<tr>
<td>Anti-tamper on/off switch</td>
<td>■</td>
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<tr>
<td>Integrated web-server &amp; logger (includes Ethernet and USB interface)</td>
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<tr>
<td>Weather resistant protection</td>
<td>○</td>
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<tr>
<td>Anti-vandalism, anti-tampering protection</td>
<td>○</td>
</tr>
<tr>
<td>IP65 protection (includes weather resistant and anti-vandalism options)</td>
<td>○</td>
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<tr>
<td>Embedded battery charger and under-voltage protection</td>
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<tr>
<td>Long life crossbar battery back-up</td>
<td>○</td>
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<tr>
<td>820 mm useful passage width</td>
<td>○</td>
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<tr>
<td>Very High precision transit counter (4-beam)</td>
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</table>

- STANDARD  ○ OPTION

Dimensions [mm]

- UNDER THE ALARM THRESHOLD
  - Small metal mass
  - Medium metal mass

- OVER THE ALARM THRESHOLD
  - Medium metal mass
  - Large metal mass

[Green and Red Metering Signals Proportional to the Metal Mass Detected]
CEIA SMD600 Plus
Very High Performance Enhanced Metal Detector

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 IP67 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, IP67 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 includes the Weather Resistant and Anti-vandalism kits.
  • 720 mm passage width (part # 55631);
  • 820 mm passage width (part # 55632)

► Long life crossbar battery back-up
  Crossbar battery back-up in stainless steel case. Provides up to 8 hours of autonomous working time.
  Part # 55681

► 820 mm Useful Passage Width
  Part # 55635

► 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

► 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
ACCESSORIES

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

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

> MBSU-2
Independent, compact size, long life power supply in weatherproof stainless steel case, with embedded fast charger:
- 25.5 hours typical (17.5 hours minimum) continuous operation with SMD600 Plus
- 5 hours typical charging time.
Part # MBSU-2

> IRC-1
Infrared Remote Controller for wireless remote programming of the control unit.
Part # 47180

> 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

> Waterproof Mains Power Supply
100W IP67 power supply for outdoor applications. It is provided with flanges for simple installation.
Part # 43564

> Metal Detector Divesting Table
FOR MANAGEMENT OF PERSONAL METAL BELONGINGS
- Standard length: 610 mm (Part # 18074)
- Extended length: 1200 mm (Part # 39491)

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

> 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 # NIJ0601.02SO/MO-SK: test samples kit for NIJ-0601.02 MO and SO classes detection capability verification.
- Part # EMD-SK-GDM-FV: reference samples for accurate verification of the disassembled guns Security Level.

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Very High Performance Enhanced Metal Detector
CEIA SMD600 Plus

Specifications

KEY FEATURES

- Very High Sensitivity
- Automatic Technical Functional Verification (TFV)
- Very High Discrimination
- Automatic Environmental Noise Compensation (ENA)
- Fully compliant with, and exceeding, the Nij-0601.02 Standard
- Random alarm capability programmable from 0% to 100%
- Very high throughput in high security public screening checkpoints
- Exceptional Immunity to external interferences
- 20 x 4 high precision localization zone x display bars
- High precision bidrectional 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)
- Power supply flexibility
- Fully compliant with applicable International Standards for Electrical Safety and EMC
- Harmless to magnetic media (floppy disks, tapes, etc.)
- Environmental Data:
  - Power Supply: 100…240V~ -10/+15%, 47…63Hz, 40 VA max
  - Operating Temperature: -20°C to +70°C (-37°C to +70°C upon request)
  - Storage Temperature: -32°C to +70°C
  - Relative Humidity: 0 to 95% (without condensation)

- Fully compliant with, and exceeding, the Nij-0601.02 Standard
- Met-Identity technology identifies and signals the metal type in real time
- Full-identity technology
- Very high throughput in high security public checkpoints
- Random alarm capability programmable from 0% to 100%
- 20 x 4 high precision localization zone x display bars
- Exceptional immunity to external interferences
- One Touch Automatic Self Installation (OTS)
- Chip Card capability for fast, simple, and secure programming
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- Continuous self diagnostic system
- Proven reliability
- No periodic re-calibration and preventive maintenance required
- No scheduled maintenance
- Fully digital design
- 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
- 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 tones 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 x 4 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)

Certification and Compliance

- Complies with the applicable Standards for Law Enforcement and Correctional Facilities
- Fully 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.)
- 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

Comprehensive support

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