



# PHARMACEUTICAL & NUTRACEUTICAL METAL DETECTION SYSTEMS



## KEY FEATURES

- SUPERIOR & CONSISTENT DETECTION
- ENHANCED PRODUCT THROUGHPUT RATE
- MAXIMUM CONFIGURABILITY / INTEGRATION
- FDA 21 CFR PART 11 COMPLIANT
  - ▶ Data Security
  - ▶ Data Integrity
  - ▶ Data Traceability
- Design and Construction COMPLIANT with GMP CRITERIA
- AISI 316L stainless steel construction
- THS ANYWHERE remote support (available with IXC module)



- ✓ TABLETS
- ✓ GEL CAPS
- ✓ GRANULAR
- ✓ SYRUPS
- ✓ CAPSULES
- ✓ POWDERS
- ✓ LIQUIDS



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QUALITY CONTROL AT ITS FINEST



**CEIA THS/PH21 Metal Detection Systems** offer detection, construction quality and reliability characteristics that make them the most suitable and effective solution to automatic elimination of metal contaminants.

**Validation Solutions Available:**

- ✓ Calibration Standards
- ✓ Validation Manuals
- ✓ Comprehensive Service & Support
- ✓ Compliance Tools
- ✓ On-line Production Data Validation

**FDA 21 PART 11 COMPLIANT**

The THS/PH21 Metal Detector Series is a high-sensitivity, high-precision measuring instrument. The response from the device is used to directly command ejection of the contaminated product and to verify that it has in fact been eliminated.

FDA Code Title 21 Part 11 prescribes rigorous criteria for access to programming and computer data protection, which have been fully adopted in the CEIA THS/PH21 Series firmware. User access is only possible via a User Name and Password login under the control of the System Administrator, who programs and manages individual user profiles and user functions. As a result, the requirements for security, integrity and traceability are satisfied.

All events performed by the THS/PH21 Metal Detector are recorded in a data log to comply with FDA Part 11 protocol and assist in root cause analysis. The events include detection, ejection, program operations, passwords and periodic functional test phases using standard test samples.



**CONTINUOUS AUTO-TEST FUNCTION**  
ensuring maximum Production Safety

**FDA 21 Part 11 Compliant**

**Exclusive Global**  
**AUTO-LEARN SYSTEM**

**METAL DETECTOR TEST PROCEDURE**  
after critical setup change

**Real-time embedded**  
**SELF-CALIBRATION CONTROL**

**Modern, rugged and**  
**USER FRIENDLY INTERFACE**



**IXC module advanced connectivity**

CEIA Metal Detectors are specially engineered so that **no manual calibration or tuning is needed.**

CEIA Metal Detectors have an **internal Auto-diagnosis** for automatic balancing of the antenna with continuous embedded **Self-Calibration control.**



### REAL-TIME EMBEDDED SELF-CALIBRATION CONTROL

The Self-Calibration control allows **maximum repeatability and performance consistency over time and with environmental changes.** By means of specific signals sent to the transmission and reception chain of the Metal Detector, constant monitoring of the detection characteristics is carried out, with consequent constant compensation for any variations caused by environmental factors. The result is system **stability and constancy in detection performance and product effect neutralization.**

### EXCLUSIVE AUTO-LEARN SYSTEM

The **Auto-Learn System** provides **simultaneous maximum sensitivity to all metals starting from a single learning transit.** The THS/PH21 Series employs an exclusive Auto-Learn system for pharmaceutical products, which allows optimization of the detection sensitivity to all metals with the maximum speed and precision, equivalent to hundreds of conventional learning transits. This results in levels of precision and efficiency never before obtained.

### CONTINUOUS AUTO-TEST FUNCTION

**Special electronic stimuli are sent to the transmission and reception chain of the THS/PH21 Series Metal Detector,** causing variations in the detection signals which provide checks on detection characteristics. These variations are compared with the reference values stored in the memory of the metal detector at the time of the factory calibration test. This produces an automatic certified check of the system's sensitivity.

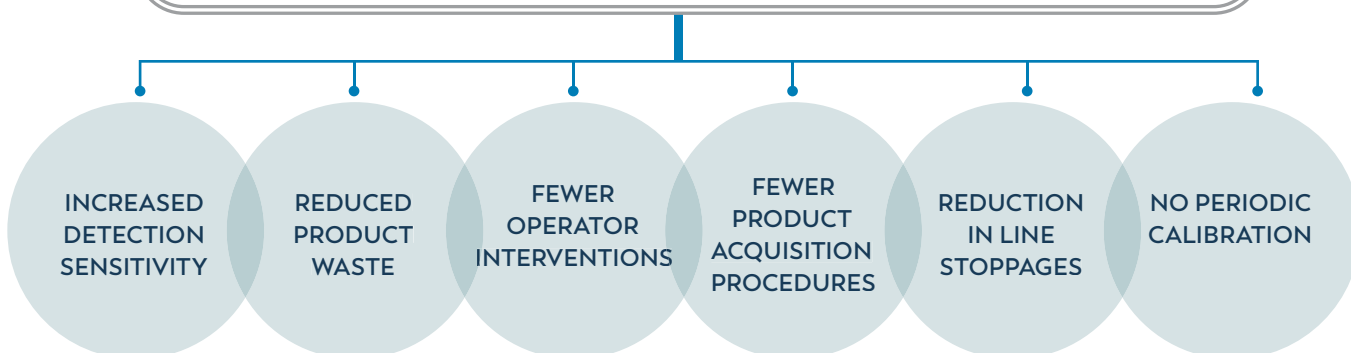
### CEIA AUTOMATIC CALIBRATION TEST

To comply with the daily Metal detection and ejection verification requirements, the CEIA Metal Detectors THS 21 Series provide:

- ✓ **A full digital internal structure,** completely free from internal trimmers to be calibrated, as the analog processing has been replaced by digital numerical analysis.
- ✓ **An automatic, wide dynamics, antenna balance tracking system** to maintain in-range performances in all installation environments.
- ✓ **A continuous embedded Self-Calibration control.**
- ✓ **A continuous Auto-Test function** which generates stimuli corresponding to the manual metal samples transits.
- ✓ **A calibration test in automatic mode.**  
During the automatic test, the Metal Detector generates a stimulus equivalent to the same excitation signal of the last manual test, verifying the correct activation of the alarm and the ejector.

All test results are recorded into the Events buffer and are available for data traceability. The THS 21 Series provides the possibility to determine and program the mix of manual and automatic test operation in a wide ratio range, depending on the User Quality procedures, through the MTI parameter.

## INCREASES IN PRODUCTIVITY AND COST SAVINGS






# HIGH PERFORMANCE PHARMACEUTICAL METAL DETECTION SYSTEMS



## THS/PH21N


### ULTRA HIGH SENSITIVITY METAL DETECTOR

- Ultra high sensitivity to all magnetic and non-magnetic metals, including stainless steel
- AISI 316L stainless steel construction
- Control Power Box available according to UL 508A and CSA-C22.2 No. 286 
- 500 product profiles, selectable by local programming or network software
- 10,000 storable events
- High-contrast graphic display
- Local programming: 16 stainless steel keys, 3 with double function
- Quick Access key for fast programming of user parameters
- Automatic Calibration Test



## THS/PH21E

### HIGH SENSITIVITY METAL DETECTOR

- High sensitivity to all magnetic and non-magnetic metals, including stainless steel
- AISI 316L stainless steel construction
- Control Power Box available according to UL 508A and CSA-C22.2 No. 286 
- 250 product profiles, selectable by local programming or network software
- 1,000 storable events
- 4 x 20 character alphanumeric display
- Local programming: 4 stainless steel keys, 3 with double function

**THS/PH21N**  
**Ultra High Sensitivity Metal Detector**

# DUST TIGHT & WASH-IN-PLACE METAL DETECTION SYSTEMS

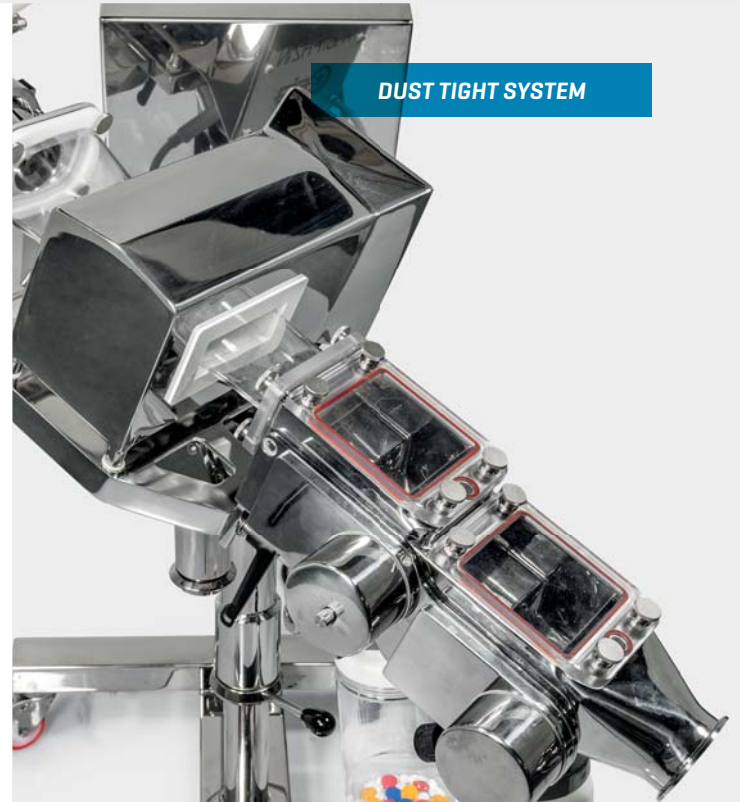


## THS/PH21N-DT

### DUST TIGHT METAL DETECTION SYSTEM

Dust tight transit pipe and ejection system prevents dispersion of the product

- Transit tunnel and ejection system completely sealed
- Easy integration with tablet press and deduster from the leading manufacturers
- Rapid maintenance does not require the employment of tools to assemble and disassemble the components
- Automatic Calibration Test



## THS/PH21N-WIP

### WASH-IN-PLACE METAL DETECTION SYSTEM

A special built-in washing system allows complete cleaning of the conduits after completion of each production batch

- Transit tunnel and ejection system completely sealed
- Fitted with nozzles for washing water injection and decontamination
- Easy integration with tablet press and deduster from the leading manufacturers
- Antistatic, Jamming Sensor and Bin full Kits [available on demand]
- Automatic Calibration Test




# INTEGRATED SYSTEMS



## THS/PH21N-FFV


FOR **GRANULAR AND POWDER** PRODUCTS

- Ultra High Sensitivity to all metals
- Very compact size
- AISI 316L stainless steel construction
- Control Power Box available according to UL 508A and CSA-C22.2 No. 286
- ATEX ZONE 21 version (available on demand) 
- Automatic Calibration Test



## THS/FFV21SG

FOR **GRANULAR AND POWDER** PRODUCTS

- Superior and consistent detection
- Ultra High Sensitivity to all metals
- FDA 21 CFR part 11 compliant
- Control Power Box available according to UL 508A and CSA-C22.2 No. 286
- ATEX ZONE 22 version (available on demand) 
- Automatic Calibration Test



### BENEFITS

- Increase productivity
- Ensure compliance
- Enhance operator safety

## THS/PLV 21 SERIES

FOR **LIQUID AND VISCOUS** PRODUCTS

- Wide range of standard pipe sizes available to suit all applications
- Full compliance with HACCP criteria
- AISI 316L stainless steel construction
- Fast acting reject device for a limited quantity of rejected product
- Easy to clean and inspect





# CONVEYOR INSPECTION SYSTEMS



## THS/FBB THS/MBB

### FLAT AND MODULAR CONVEYOR INSPECTION SYSTEMS

- High Sensitivity to all metals
- Integrated controls for line speed and rejection
- High immunity to environmental interference
- Automatic learning & tracking of product effect
- Easy to maintain and inspect
- Digitally adjustable belt speed
- Control Power Box available according to UL 508A and CSA-C22.2 No. 286
- Applications:
  - ✓ Flacons ✓ Bottles ✓ Packaging
  - ✓ Loose product

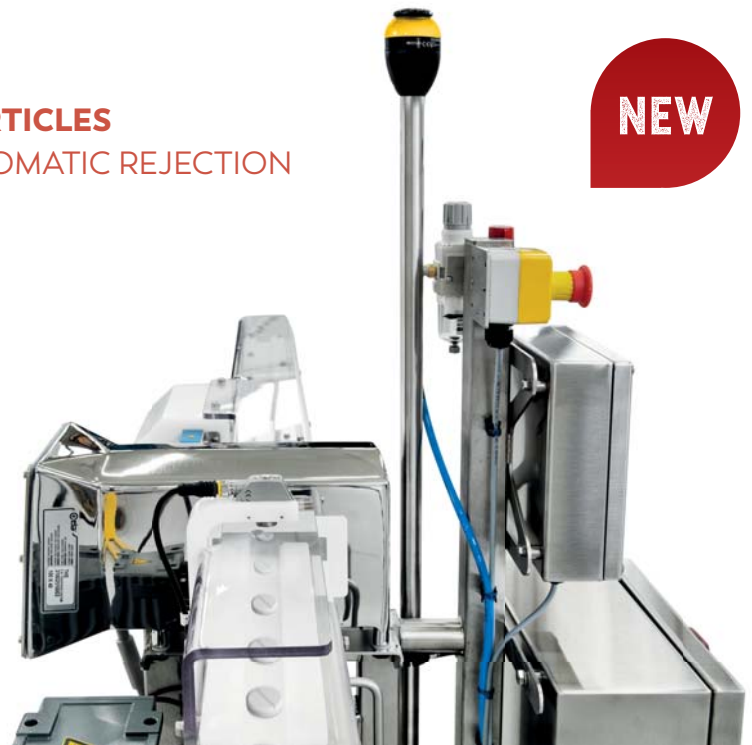


## THS/PH21N-FB

### DETECTION OF VERY TINY METAL PARTICLES ON EFFERVESCENT TABLETS WITH AUTOMATIC REJECTION

- Ultra high sensitivity to all magnetic and non-magnetic metals, including stainless steel
- AISI 316L stainless steel construction
- Integrated controls for line speed and rejection
- High immunity to environmental interference
- Automatic learning & tracking of product effect
- Easy to maintain and inspect
- Digitally adjustable belt speed
- Automatic ejection management with synchronization of the product transit
- Verification of the successful ejection of the contaminated product

NEW



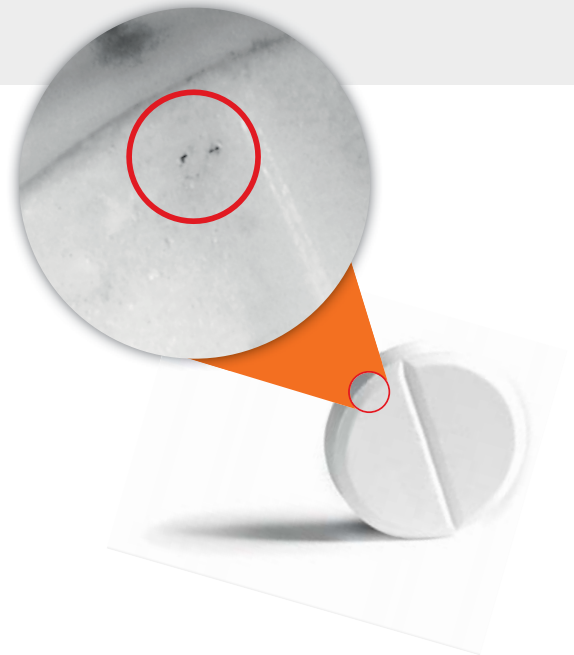
# SPECIFIC INSPECTION AGAINST TINY METAL PARTICLE CONTAMINATION




## THS/PH21N-D25

### ULTRA HIGH SENSITIVITY METAL DETECTOR

- Unsurpassed Detection
- Best Product Quality
- Round aperture
- Automatic Calibration Test
- Applications:
  - ✓ R&D analysis
  - ✓ Rework confirmation
  - ✓ Root cause analysis assistance
  - ✓ New product specification



PRODUCT		VERIFIED THROUGHPUT (items / h)
		THS/PH21N-D25
	Diameter: Ø 8,5 mm Thickness: 4,5 mm	30,000

### EXAMPLES OF THROUGHPUT

- Tilt Angle: 35°
- Max Throughput Rates are related to the shape and to the size of the tablets





# THS/PH21® ADVANTAGES AND PERFORMANCES



## MODERN, RUGGED AND USER FRIENDLY INTERFACE

- **INDUSTRIAL RATE DESIGN**
- **RAPID DATA ENTRY WITH EXTENDED KEYBOARD**
- **EASY TO READ, HIGH-CONTRAST GRAPHIC DISPLAY**
- **RUGGED, ANTIVANDALIC STAINLESS STEEL KEYBOARD**

*Organic graph display with extremely high contrast [3000:1] and a viewing angle up to 180°, and an extended alphanumeric keypad for quick keystrokes.*

- **PROTECTION DEGREE:**

- Power Supply Box: IP65 [IEC60529]
- Antenna & Ejection System: IP67

- **40 USERS AVAILABLE (INCLUDING ADMINISTRATOR)**

- **QUICK ACCESS FUNCTION**

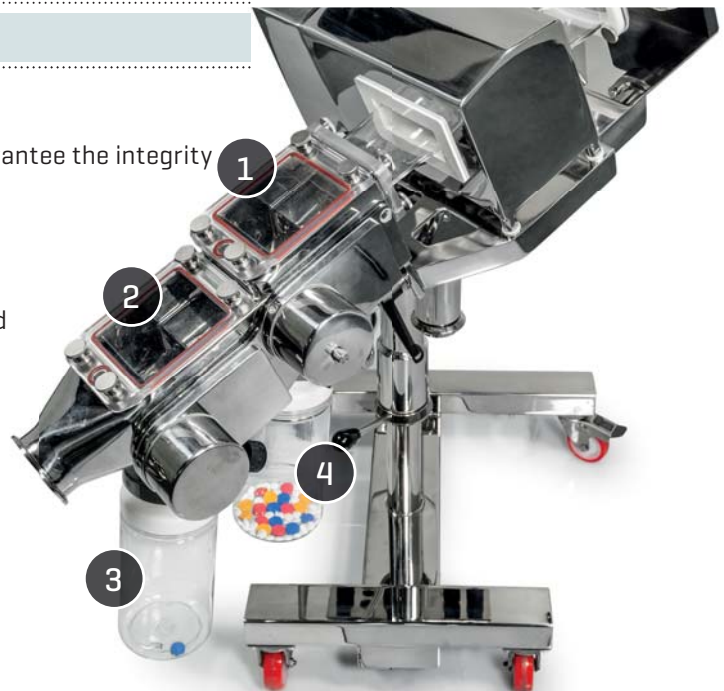
*A new function, activated simply by pressing a dedicated key, allows the most frequently-used functions to be directly recalled. These functions are programmable by the operator.*



## EJECTION SYSTEM SPECIFICATIONS

- Monolithic AISI 316L Stainless Steel Body
- Advanced mechanical and electronic solutions guarantee the integrity of the inspected product
- Extremely quick response time provides full safety in the ejection of contaminated product
- Double confirmation system carefully monitors and controls the complete opening and closing of the ejection flap
- Bin full sensor kit [on request]

- 1 Metal Detector Ejection System
- 2 Metal Detector Sampling Ejection and Safe Test
- 3 Product Sampling
- 4 Contaminated Product



# SOPHISTICATED INTERFACE CAPABILITIES

## BT CONNECTIVITY

In the THS/PH21 Series, local connection to the maintenance technician’s computer no longer requires physical access to the interior of the detector or the use of unwieldy connection cables.

The BT connection can be used for programming, monitoring of the signals via the CEIA MD-SCOPE program and the transfer of the data contained in the Metal Detector’s events memory.

## THS PRODUCTION PLUS

THS Production Plus software provides acquisition and report capability for the THS Metal Detector

- Connects and Acquires Data from Multiple THS Detectors via Ethernet LAN
- Provides Connection to an External Database and Definition of a Programmable Block of SQL Instructions for each Metal Detector Event
- Enables Data Base Management and Back-Up of Metal Detector events
- Report Data Exportable in HTML, CSV format and PDF
- Provides User Authentication and Manages Electronic Signatures and Records
- Allows Data Integrity and Operator Auditing
- FDA Requirements Compliant, Title 21 of the Code of Federal Regulations [CFR]
- E-mail sender
- OPC-UA protocol API for Metal Detector Monitor and Control
- High performance 64-bit database that handles more than 500 millions events
- Compatible with standard SCADA Systems
- Integrated Web-Server Appliance for real-time monitoring for HMI and touch panel
- CEIA-ERP API interface for communication to the factory management software
- Batch management
- Data Inspector Tool for signal and product analysis (optional)

## MD-SCOPE

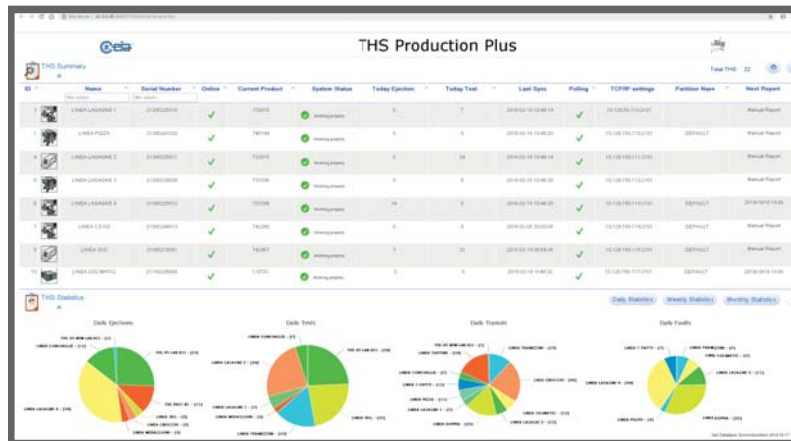
Software Diagnostic Package complete with connector cable and hardware key:

- REMOTE PROGRAMMING
- SIGNAL INPUT/OUTPUT
- ALARM THRESHOLD AND AMPLITUDE OF THE SIGNAL
- OSCILLOSCOPE FUNCTIONALITIES

## NETWORK COMMUNICATION CAPABILITIES

The Metal Detector can be linked to an Ethernet network (optional IXC module required).

In association with the THS Production Plus Software it enables remote management of production, collection of all technical and operational events, generation of statistical and traceability reports in compliance with FDA 21 CFR part 11 requirements.

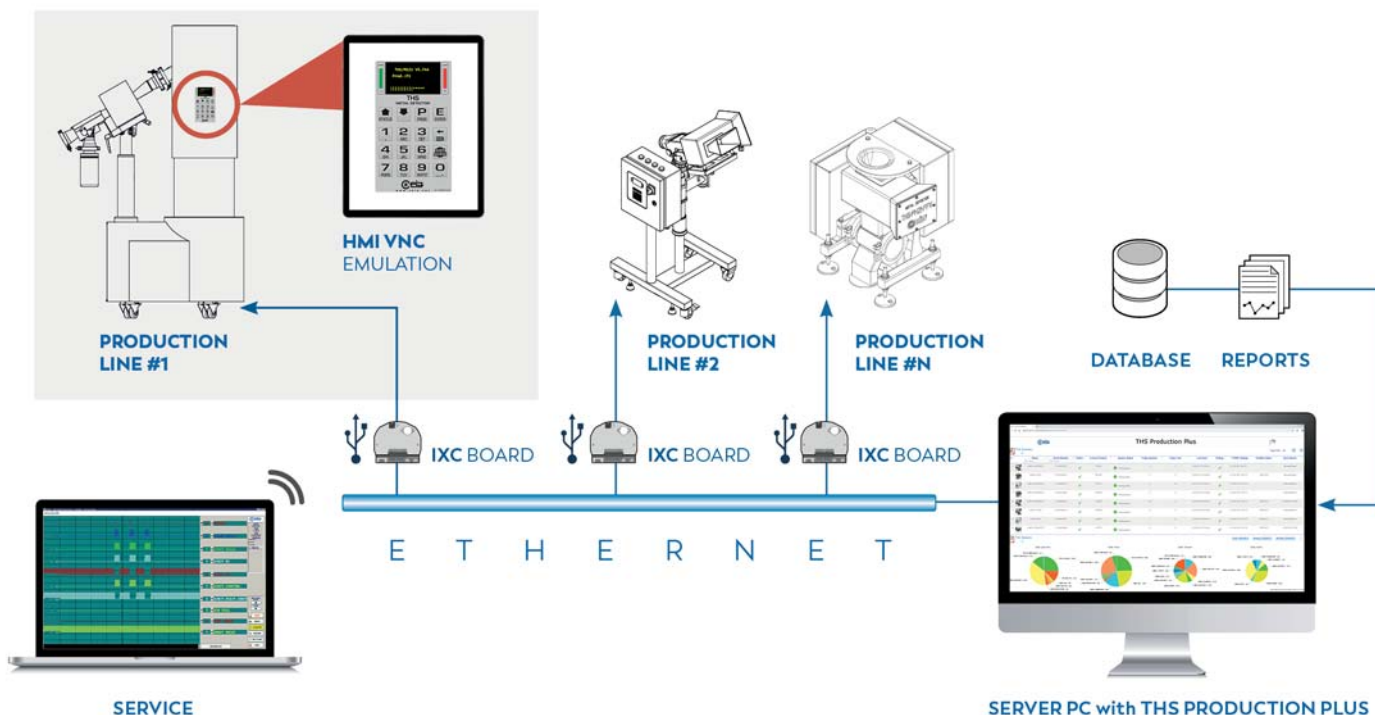


THS Production Plus software provides acquisition and report capability for the THS/PH21 Metal Detector

# IXC MODULE ADVANCED CONNECTIVITY



ETH / WI-FI	USB	INTERFACES
✓		<b>BUILT-IN MD SCOPE:</b> Metal Detector signal and remote programming terminal
✓		<b>STATUS:</b> replicates every message displayed by the THS (updated each 5 s)
✓		<b>PRODUCTS:</b> displays the list of products stored into the THS memory, the selected product is shown in green. This page allows the product to be changed
✓	✓	<b>PRODUCTS EXPORT:</b> allows selection of all or part of the products stored in the THS memory in order to export them
✓	✓	<b>PRODUCTS IMPORT:</b> allows importation of all or part of the products exported
✓	✓	<b>BUFFER EXPORT:</b> allows exportation of events occurred in a selected time frame
✓	✓	<b>CONFIGURATION BACKUP/RESTORE:</b> backup and restoring of the Metal Detector configuration
✓	✓	<b>CONFIGURATION EXPORT/IMPORT:</b> allows the configuration to be exported or imported from other Metal Detectors of the same model, installed on the same line
✓		<b>THS ANYWHERE</b> cloud based Assistance reserved to CEIA Authorized Service Engineer
✓		<b>HMI</b> emulation by <b>VNC</b> client
✓		<b>EtherNet/IP</b> interface





# OPTIONS







PART	DESCRIPTION	APPLICABLE MODELS	CODE
	<p><b>IXC CARD WITH INTERNAL USB KEY</b></p> <p>Additional card that provides the detector a network Interface, (Ethernet or WiFi), integrated Webserver and a USB interface to save or load data relevant to the products, configuration, and events. This option also includes internal memory up to 100,000 events.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>106898</p>
	<p><b>EXTERNAL USB PLUG KIT</b></p> <p>Allows USB connector of the IXC card to be mounted outside of the Power Control Box.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>55613</p>
	<p><b>ANTISTATIC INFEEED CONVEYOR KIT</b></p> <p>Eliminates electrostatic charges during the product's passage. Particularly efficient in case of tablets and capsules' inspection.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> </ul>	<p>64270 [90x25*] 60214 [100x40*]</p>
	<p><b>ANTISTATIC INFEEED CONVEYOR KIT FOR DUST TIGHT (DT) VERSION</b></p> <p>Dust Tight Infeed conveyor eliminates electrostatic charges during the product's passage. Particularly efficient in case of tablets and capsules' inspection.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> </ul>	<p>68105 [100x40*]</p>
	<p><b>ANTISTATIC INFEEED CONVEYOR KIT FOR WASH IN PLACE (WIP) VERSION</b></p> <p>Wash In Place Infeed Conveyor with nozzles eliminates electrostatic charges during the product's passage. Particularly efficient in case of tablets and capsules' inspection</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> </ul>	<p>70744 [100x40*]</p>

\* Aperture size

# OPTIONS

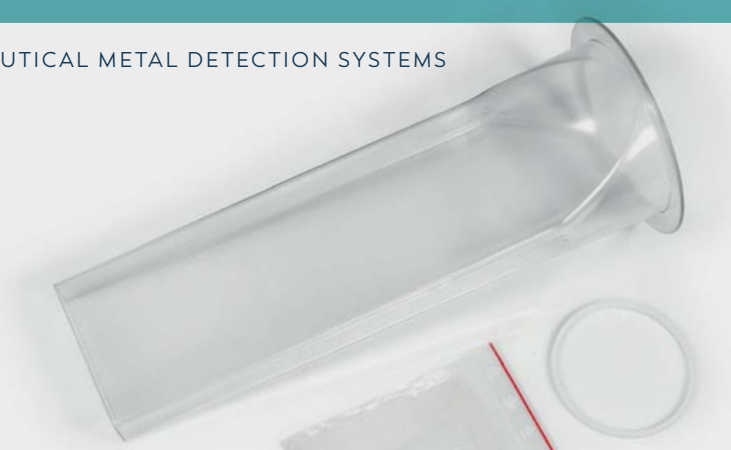


PART	DESCRIPTION	APPLICABLE MODELS	CODE
	<p><b>ANTISTATIC KIT</b></p> <p>Infeed chute kit eliminates electrostatic charges during the product's passage. Particularly efficient for powder and granular inspection.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>64865 [90x25*] 65504 [100x40*]</p>
	<p><b>INFEEED JAM SENSOR</b></p> <p>Added sensor installed between the infeed conveyor and the probe. Provides alarm message in case of product jamming.</p>	<ul style="list-style-type: none"> <li>• THS/PH21N-D25</li> </ul>	<p>63773</p>
	<p><b>JAM SENSOR</b></p> <p>Added sensor installed between the probe and the ejection carter. Provides alarm message in case of product jamming.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>63774 [90x25*] 63774 [100x40*]</p>
	<p><b>TSDU (TEST SAMPLE DISTRIBUTOR UNIT)</b></p> <p>When installed to a THS/PH21 Metal Detector equipped with double reject, it allows a safe mode test with no interference to product flow.</p> <p>9 test samples per unit are included in the price [3 of each type: Ferrous, Non Ferrous and Stainless AISI316]</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> </ul>	<p>89810 [DT version] 85619 [WIP version]</p>
	<p><b>BIN FULL SENSOR</b></p> <p>Added sensor that activates when the reject bin is full with rejected products. When activated, an alarm message on the detector's display warns the operator of the full condition.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> </ul>	<p>86905</p>



\* Aperture size

# ACCESSORIES








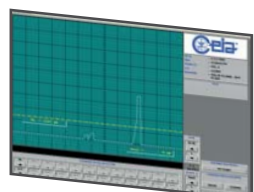
PART	DESCRIPTION	APPLICABLE MODELS	CODE
	<p><b>SET-ASIDE MATERIAL CONTAINERS</b></p> <p>500 ml - STANDARD 950 ml - STANDARD</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> </ul>	<p>38699 38700</p>
	<p><b>SET-ASIDE MATERIAL CONTAINERS</b></p> <p>500 ml - TRICLAMP/DT/WIP 950 ml - TRICLAMP/DT/WIP</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> </ul>	<p>38110 38113</p>
	<p><b>PERIODIC MAINTENANCE KIT</b></p> <p>Kit includes:</p> <ol style="list-style-type: none"> <li>1. One [1] lift flap bearing support</li> <li>2. One [1] Infeed Conveyor</li> <li>3. One [1] Intermediate Conveyor</li> </ol>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> </ul>	<p>48967 [90x25*] 48966 [100x40*]</p>
	<p><b>PERIODIC MAINTENANCE KIT</b></p> <p>Kit includes:</p> <ol style="list-style-type: none"> <li>1. One [1] rejector Valve Bushing</li> <li>2. One [1] Infeed Conveyor</li> <li>3. One [1] Infeed Valve O-ring</li> </ol>	<ul style="list-style-type: none"> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>49035 [90x25*] 49034 [100x40*]</p>
	<p><b>PERIODIC MAINTENANCE KIT</b></p> <p>Kit includes:</p> <ol style="list-style-type: none"> <li>1. One [1] lift flap bearing support</li> <li>2. One [1] Infeed Conveyor</li> <li>3. One [1] Intermediate Conveyor</li> </ol>	<ul style="list-style-type: none"> <li>• THS/PH21N-D25</li> </ul>	<p>58761</p>
	<p><b>WRENCH</b></p> <p>Wrench for adjusting the height of the probe</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> </ul>	<p>30190</p>

\* Aperture size



# ACCESSORIES

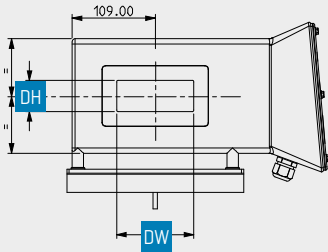


PART	DESCRIPTION	APPLICABLE MODELS	CODE
	<p><b>VALIDATION MANUAL</b></p> <p>Detailed hardcopy document for process/equipment validation of detector.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> </ul>	<p>30839</p>
		<ul style="list-style-type: none"> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>51698</p>
	<p><b>VALIDATION MANUAL (DIGITAL DOCUMENT)</b></p> <p>Detailed electronic document that can be downloaded through a link provided by CEIA for process/equipment validation of detector.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> </ul>  <ul style="list-style-type: none"> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>90673</p> <p>90672</p>
	<p><b>TECHNICAL MANUAL</b></p> <p>Detailed hardcopy document(s) that includes:</p> <ol style="list-style-type: none"> <li>1. Installation Manual</li> <li>2. Operator Manual</li> <li>3. Programming Manual</li> </ol>		<p>45669</p>
	<p><b>TECHNICAL MANUAL (DIGITAL DOCUMENT)</b></p> <p>Detailed electronic document(s) that can be downloaded through a link provided by CEIA.</p> <p>Package includes: 1. Installation Manual 2. Operator Manual 3. Programming Manual</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul> 	<p>90674</p>
	<p><b>THS PRODUCTION</b></p> <p>Software for the data management (see page 11). Requires installation of IXC option.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>33908</p>
	<p><b>MD-SCOPE</b></p> <p>Software diagnostic tool (that can be installed on the user's PC). Allows remote programming, signal input/output, review/analysis of alarms and amplitude of signal(s), and oscilloscope functionalities. Includes software, connector cable and a USB key.</p>	<ul style="list-style-type: none"> <li>• THS/PH21E</li> <li>• THS/PH21N</li> <li>• THS/PH21N-D25</li> <li>• THS/PH21E-FFV</li> <li>• THS/PH21N-FFV</li> </ul>	<p>MD-SCOPE2</p>

\* Aperture size

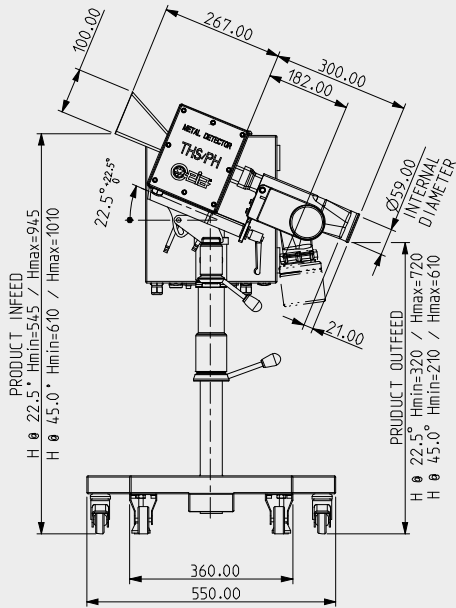
# THS/PH21<sup>®</sup> MECHANICAL DATA

## THS/PH21N • THS/PH21E

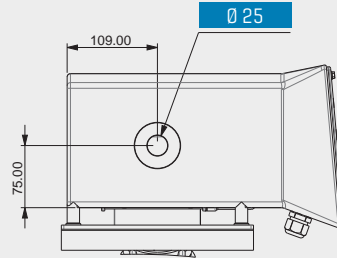


**APERTURE SIZE (DW x DH)**

90 x 25  
100 x 40

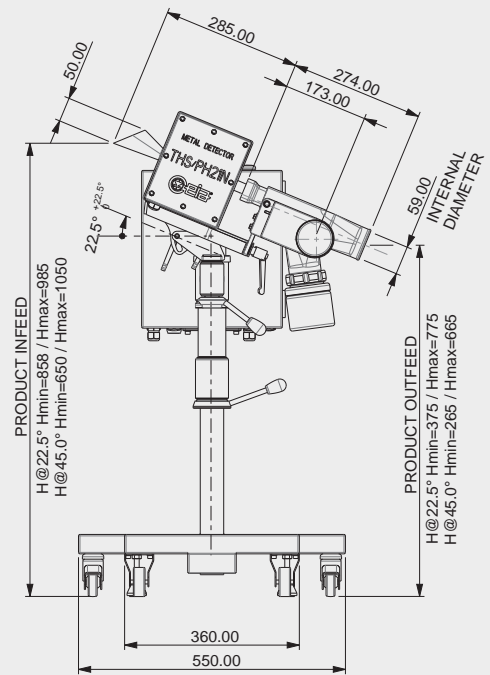


## THS/PH21N-D25



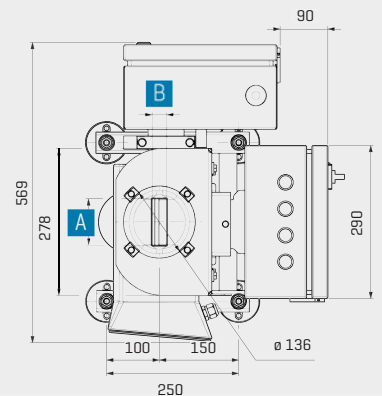
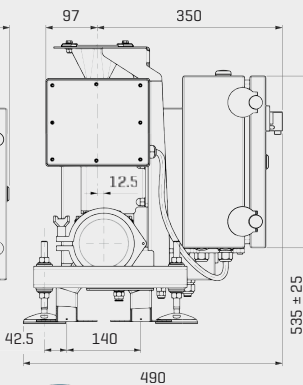
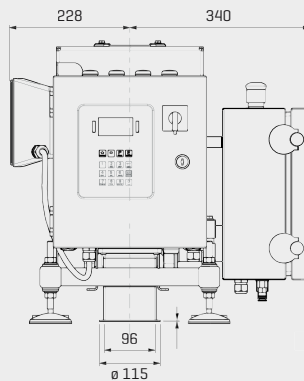
**APERTURE SIZE**

Ø 25



## THS/PH21N-FFV • THS/PH21E-FFV

APERTURE SIZE	A	B
100 x 40	90	30
90 x 25	78	13



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