

THS/TT

Very high sensitivity Metal Detector 非常高靈敏度的金屬探測器 用於工業用途 for industrial use



METAL DETECTOR ANTENNA

金屬探測器天線



DIGITAL CONTROL
PANEL

數碼控制面板

- Very high Sensitivity to all magnetic and non-magnetic metals, including stainless steel
對所有磁性和非磁性金屬（包括不銹鋼）的靈敏度非常高
- High Immunity to environmental Interference
對環境干擾的高免疫力
- Wide Detection Speed range, from 1 m/s up to 50 m/s
寬檢測速度範圍，從1 m/s到50 m/s
- Metal object speed and mass sensing
金屬物體的速度和質量感測
- Compact and robust full AISI 304 stainless steel construction
緊湊而堅固的全AISI 304不銹鋼結構
- IP65 high degree of protection
IP65高防護等級
- Easy installation and setting
易於安裝和設置
- Fully Digital Programming
全數字編程
- High contrast graphic OLED display
高對比度圖形 OLED顯示屏
- Password protected with separate user
密碼由單獨的用戶保護
- Bluetooth communication for setting and maintenance through external PC
通過外部PC進行設置和維護的藍牙通信
- Autolearn function for automatic setting of the maximum sensitivity in dry and wet conditions
自動調節功能，可在乾燥和潮濕條件下自動設定最大靈敏度
- High level of electronic and mechanical Reliability
高水平的電子和機械可靠性



THS/TT

High sensitivity Metal Detector for industrial use

金屬探測器檢測管道中偶然存在的金屬污染物（即氣動管路，具有靈敏度，抗干擾性和響應速度，旨在滿足最嚴格的質量控制要求

The CEIA THS/TT Metal Detector detects metal contaminants accidentally present in pipelines (i.e. in pneumatic lines), with levels of sensitivity, immunity to interference and response speeds designed to satisfy the strictest Quality Control requirements

金屬探測器設計用於高速生產線，允許攔截所有磁性和非磁性金屬，包括高電阻率不銹鋼 CEIA THS/TT Metal Detectors, designed for operation in high speed production lines, allow interception of all magnetic and non-magnetic metals, including high-resistivity stainless steel. **The system is composed of an electronic control unit and an antenna** which is positioned in the path of the product to be inspected.該系統由電子控制單元和天線組成，天線位於待檢產品的路徑中。

The advanced antenna design, completely manufactured in AISI 304 Stainless Steel, ensures high stability, high immunity and exceptional reliability. 先進的天線設計完全採用 AISI 304 不銹鋼製造，可確保高穩定性，高抗擾度和出色的可靠性。

DSP (Digital Signal Processing) of the Metal Detector Antenna signals allows a **very high degree of sensitivity to be achieved for all metals**.

金屬探測器天線信號的 DSP（數字信號處理）可以為所有金屬實現非常高的靈敏度。

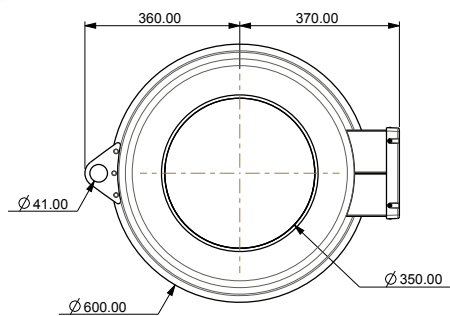
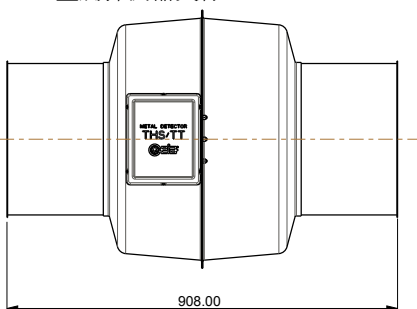
Microcomputer control and complete programmability simplify installation, and in certain applications can offer the capability of operating as production line controller using suitable sensors and actuators.

微電腦控制和完全可編程性簡化了安裝，並且在某些應用中可以提供使用合適的傳感器和執行器作為生產線控制器操作的能力。

Overall dimensions (mm)

Metal Detector Antenna

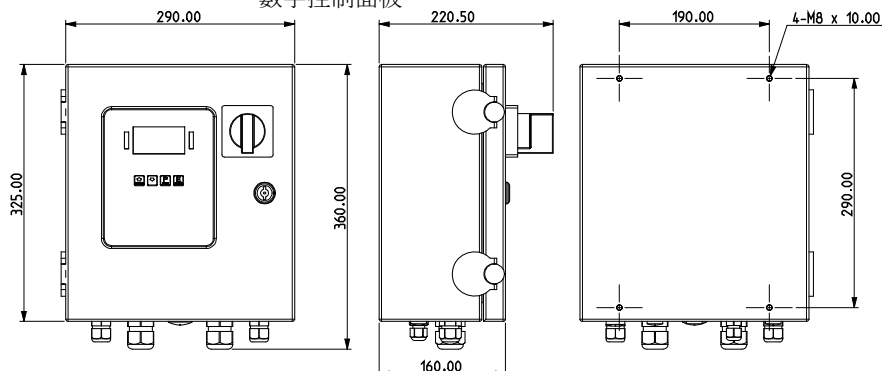
金屬探測器天線



指示 A 表示以 dB 為單位的信號量；0dB 的值對應於剛好高於警報閾值的信號；在顯示器上顯示檢測到的物體的測量速度（S）。該值以米/分鐘表示。

Digital Control Panel

數字控制面板

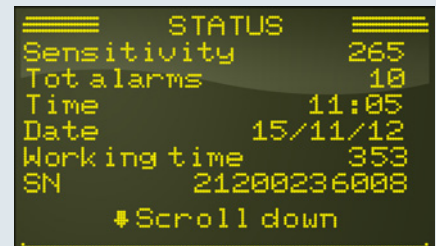


Modern, rugged and user friendly Programming

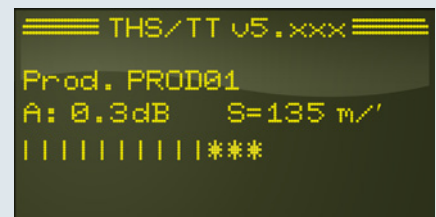
現代，堅固且用戶友好的編程



- INDUSTRIAL RATED DESIGN 工業評級設計
- RAPID DATA ENTRY 快速數據輸入
- EASY TO READ, HIGH-CONTRAST GRAPHIC DISPLAY 易於閱讀，高對比度的圖形顯示
- RUGGED, ANTIVANDALIC STAINLESS STEEL KEYBOARD 堅固耐用的防破壞不銹鋼鍵盤



DISPLAY OF THE STATUS OF THE METAL DETECTOR 顯示金屬探測器的狀態



METALLIC MASS DETECTION

The indication A represents the amount of signal in dB; a value of 0dB corresponds to a signal just above the alarm threshold; the measured speed (S) of the detected object is shown on the display. The value is expressed in meters per minute.



SELF DIAGNOSIS

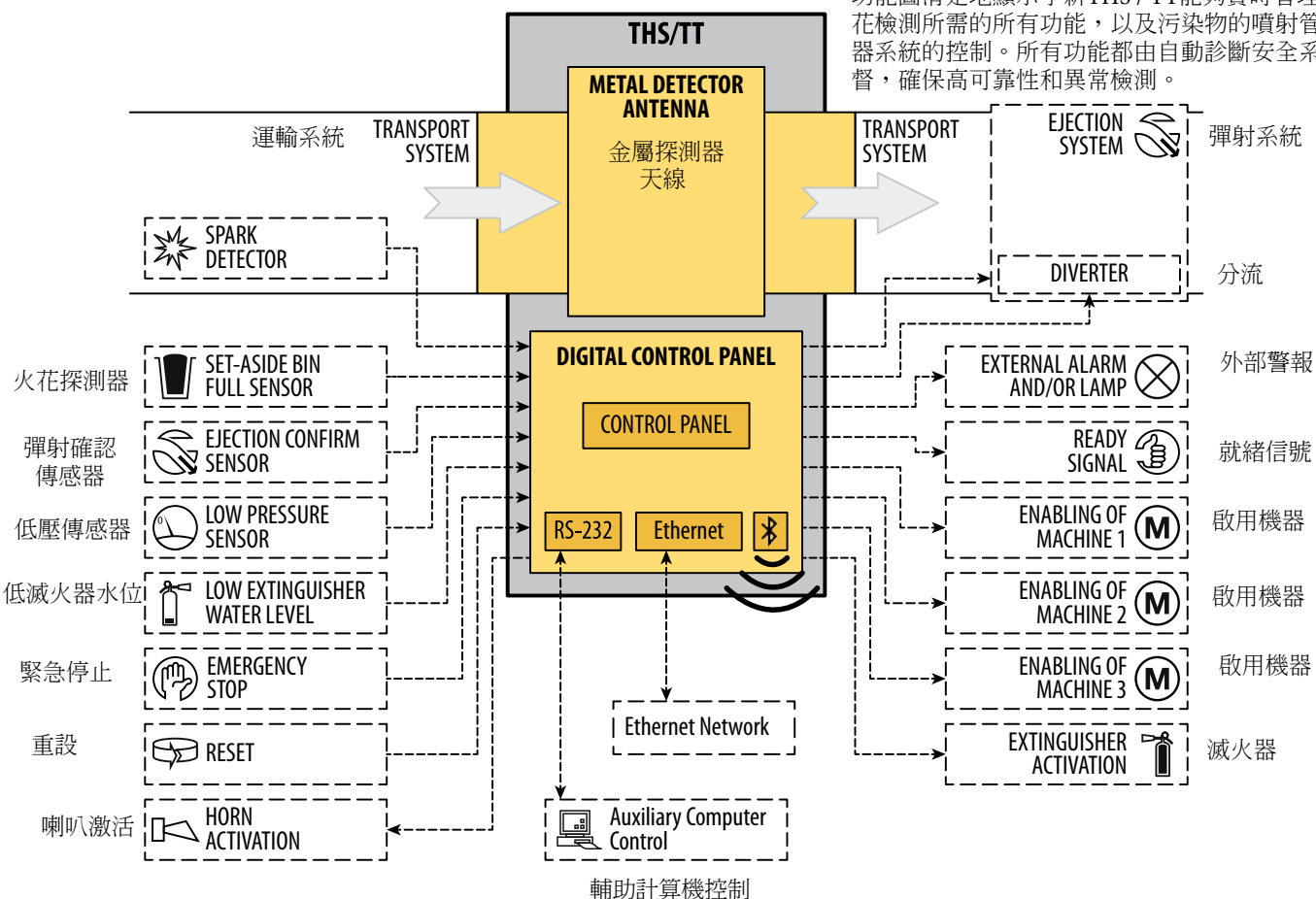
The problem encountered is shown on the display and an alarm signal is uttered requiring the intervention of the operator.

遇到的問題顯示在顯示屏上，並且發出警報信號，需要操作員干預。

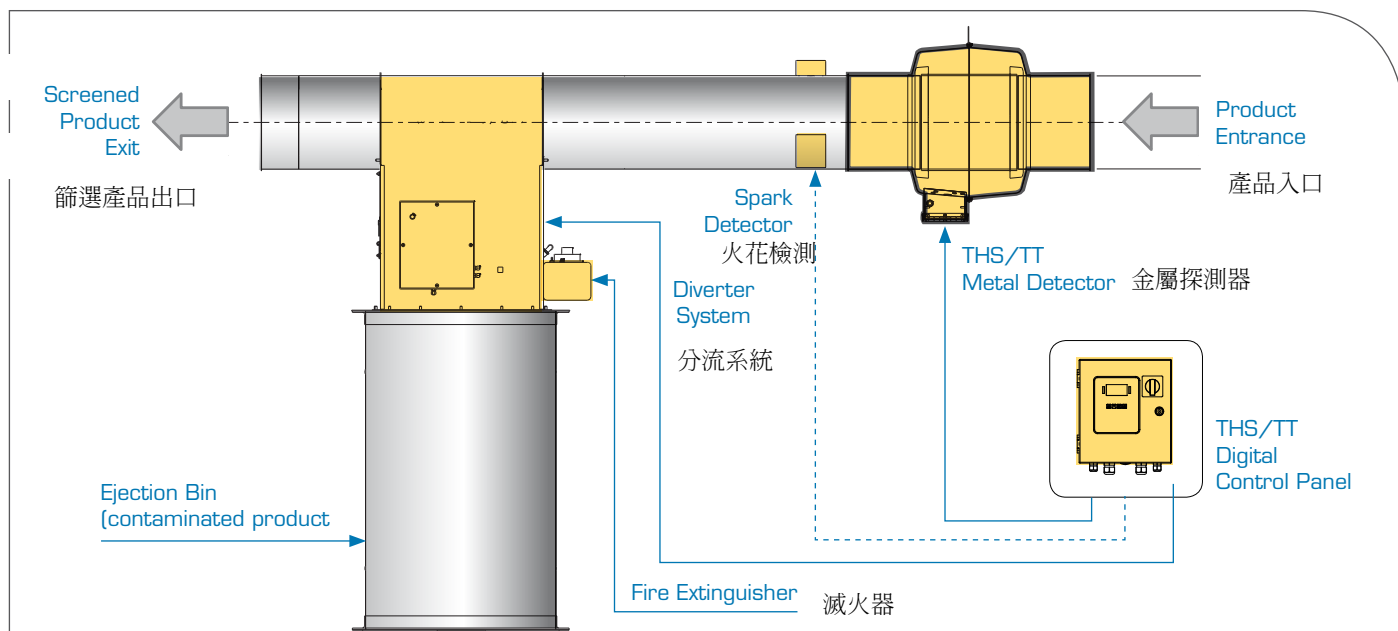
Functional Diagram 功能圖

The functional diagram clearly shows **the capability of the new THS/TT to manage, in real time, all functions** needed for metal and spark detection, as well as the ejection management of the contaminant and the control of the extinguisher system. **All functions are carefully supervised by an auto diagnostic safety system** which ensures high reliability and detection of anomalies.

功能圖清楚地顯示了新THS / TT能夠實時管理金屬和火花檢測所需的所有功能，以及污染物的噴射管理和滅火器系統的控制。所有功能都由自動診斷安全系統仔細監督，確保高可靠性和異常檢測。



THS/TT principle of application



THS/TT

High sensitivity Metal Detector for industrial use

Specifications

General Features 一般特徵	Very High Detection sensitivity	非常高的檢測靈敏度
	Full AISI 304 Stainless Steel construction	完整的AISI 304不銹鋼結構
	Complete management of detection and ejection functions	完全檢測和彈出功能
	Immunity to environmental interference	免受環境干擾
	Data display type	數據顯示類型 Alphanumeric OLED, 4x20 characters
	Local programming	本地編程 4 keys, 3 with double function
	Control Power Box according to Standards	控制電源箱符合UL 508A和CSA-C22.2 No. 14-05標準
	Maximum detection speed	50 m/s 最大檢測速度：50m/s
	Automatic metal contaminant speed measurement with automatic ejection time calculation	自動金屬污染物速度測量，自動噴射時間計算
	Transit speed measurement range	from 0.1 to 50 m/s
音視頻檢測指標	Audio and visual detection indicators	運輸速度測量範圍：從0.1到50m/s
	Display of the signal level by means of bar-graph	通過條形圖顯示信號電平
	Automatic Balancing	自動平衡
	ISO 9001 certificated manufacturer	ISO 9001認證製造商
	Adjustable sensitivity with dynamic range	動態範圍可調靈敏度
	Quartz-controlled operating frequencies	石英控制的工作頻率
Events storage 活動存儲	Complete monitoring of occurred events	Ejections 拋射
	發生事件的完整監控	Test results 檢測結果
		Programming accesses 編程訪問
		Programming operations 編程操作
I/O interfaces	Complete monitoring of occurred events	Faults 錯誤
	發生事件的完整監控	
Signalling 信令	Acoustic 聲音	RS232, 輔助RS232, 藍牙, 以太網 (可選)
	Optical 光纖	Via internal buzzer 通過內部蜂鳴器
Programming	Local: Built-in keyboard and high-contrast display	本地：內置鍵盤和高對比度顯示
	Remote: through computer connected via Bluetooth or RS232 and managed with CEIA MDSCOPE software	遠程：通過藍牙或RS232連接的計算機，並使用CEIA MDSCOPE軟件進行管理
Safety and Security	Protection degree 保護等級	IP65 (Control Power box) (控制電源箱) IP44 (Probe) (樣品)
	Electrical insulation 電源電壓的電流隔離	Galvanic isolation of the mains voltage Compliant with international standards for safety and radio interference
Self-diagnosis system 自我診斷系統	An internal self-diagnosis system continuously monitors Metal Detector functional efficiency. In the event of a fault, a message is shown on the control display and all alarm indicators are activated along with corresponding relays	內部自診斷系統持續監控金屬探測器的功能效率。如果發生故障，控制顯示屏上會顯示一條消息，所有報警指示燈和相應的繼電器一起被激活
Supply 供應	Control Power Box 控制電源箱	Main voltage 100-240 Vac
	頻率 and 相位	Frequency and phase 50/60 Hz - single phase
	滿載電流	Full load current (FLA) 2.2 A
Environmental data 環境數據	Temperature 溫度	Operating: -10 to +55 °C 操作：-10 to +55 °C Storage: -25 to +55 °C (+70°C for 24h max) 儲存：-25至+55 °C (+70 °C最長24小時)
	Relative humidity 相對濕度	5 to 90 %, non-condensing 5至90%，無凝結
Mechanical strength 機械強度	Maximum pressure permitted in the product conveyor tube	0.05 Mpa 產品輸送管允許的最大壓力

I/O Interface

INPUTS

Detection

- Spark Detector 火花探測器
- Ejection confirmation 彈射確認

Safety

- Low extinguisher water level 低滅火器水位
- Low air pressure 氣壓低
- Bin full Bin滿員
- Emergency 緊急情況
- External emergency 外部緊急情況
- Emergency Reset 緊急重置

OUTPUTS

Detection

- Alarm relay 報警繼電器
- Diverter 分流
- Ejection relay 彈射繼電器
- Extinguisher 滅火器

Signalling

- Horn 喇叭

Auto diagnosis

- Machine Ready relay 機器就緒繼電器
- Machine enable 1 relay 機器啟用1繼電器
- Machine enable 2 relay 機器啟用2繼電器
- Machine enable 3 relay 機器啟用3繼電器

Certification and Conformity

Electrical Safety Standards

(Low Voltage Directive 2006/95/EC)
電氣安全標準 (低電壓指令2006/95/EC)

Electromagnetic Compatibility

Standards (Directive EMC 2004/104/EC)
電磁兼容標準 (指令EMC 2004/104/EC)

Applications

- Textile, paper and wood industries 紡織，造紙和木材工業

符合安全和無線電干擾的國際標準

