

THS/3F

Multi-frequency metal detector
for quality control



CALL TOLL-FREE 800 227 5980

Phone 510 259 0500 Fax 510 259 0600

info@heatandcontrol.com

HEAT AND CONTROL

www.heatandcontrol.com



Very high sensitivity to all magnetic and non-magnetic metals, including stainless steel

Multi-frequency technology for maximum sensitivity to product effect variations

Autolearn and automatic tracking of the product effect

Full compliance with **HACCP** criteria

250 product data memories, selectable by local programming, bar code reader or network software

Completely housed in **AISI 316L** stainless steel

High level of electronic and mechanical **reliability**

THS/3F Multi-frequency metal detector

www.ceia.net

The THS/3F metal detector is **recommended for use on multi-product lines**, where the individual products have very different conductivity characteristics. Under these circumstances, the THS/3F allows **maximum sensitivity for detection of contaminating metals**, both magnetic and non-magnetic and including high-resistivity stainless steels, to be maintained. The automatic frequency selection function allows the THS/3F to choose the **optimum frequency for the product in transit during the Autolearn phase**.

The **automatic tracking function** eliminates any further variations due to the "product effect". The wide pass band of the THS/3F detector allows operation at maximum sensitivity at both slow and fast speeds.

The digital analysis of the signal provided by the antenna (DSP) allows the user to achieve **extremely high sensitivity, immunity to interference and operational stability**.

The THS Report management software (optional) provides statistical data on the actions carried out by the detector, on the periodic tests and on variations in the parameters, in line with **ISO 9001** specifications on traceability data.



Technical Specifications

- Very high sensitivity to all magnetic and non-magnetic metals, including stainless steel
- Extremely high immunity to environmental interference
- Automatic balancing
- Digital signal processing (DSP) with automatic compensation for the "product effect"
- Quartz-controlled operating frequencies
- Local or remote programming of operating parameters (product type, transit speed, signal analysis, external activator commands, etc.)
- Easy-to-read alphanumeric display
- Memory holds 250 different products
- Autolearn of product effect
- Programming access protected by 5 local and 1 remote password levels
- Audible and visual alarms
- Bar-graph indication of signal level
- Internal self-diagnosis
- Stainless steel construction to **IP65 protection level** (IP66-IP69K available on request)

Statistical Analysis

- Contaminated product count
- Count of total number of objects inspected (with photocell)
- Product quality control **complies with ISO 9001 standards**

Operating Modes

- Basic mode with manual reset
- Delay mode, with immediate activation of alarm relay and delayed activation of ejection relay
- Synchronized mode, with immediate activation of alarm and ejection relays synchronized by photocell

Applications

- Food and chemical industries, pharmaceutical

Installation Data

- Power supply: 115/230 VAC, -22 %/+10%, 48-62 Hz; 60 VA
- Operating temperature: from 14°F (-10°C) to 131°F (+55°C)
- Relative humidity: 0 -95% (without condensation)
- RS-232 serial interface
- Possibility of connection to a computer or other control system, e.g. checkweigher
- Input for connection to encoder on conveyor belt for automatic measurement of product speed
- Inputs for alarm signalling of *bin full* and/or *confirm ejection*
- Auxiliary inputs and outputs available for slave devices and external controls

Accessories/Optionals

- Input for connection to an optional bar code reader
- RS-485 network interface
- Possibility of including an inverter to control the motor (**conveyor control system**) in the power supply box
- Test reference samples: ferrous, non-ferrous and stainless steel
- **MD-CAD**: computer aided design for the metal detector installation
- **THS Report**: software for management of statistical data, periodic tests and variations in the parameters
- **MD Scope**: software for oscilloscope simulation and terminal operations on CEIA metal detectors

Certification and Conformity

- Conforms to current requirements for metal detection systems
- Complies with EC regulations and international standards relating to electrical safety and electromagnetic compatibility



CONVEYOR CONTROL SYSTEM



MD-CAD, COMPUTER AIDED DESIGN FOR THE METAL DETECTOR INSTALLATION

HEAT AND CONTROL

®

21121 Cabot Blvd. Hayward, CA 94545 USA
Tel 1 800 227 5980 / 1 510 259 0500 Fax 1 510 259 0600
info@heatandcontrol.com

www.heatandcontrol.com