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ISO 9001 Company

THS/3F

MULTI-FREQUENCY METAL DETECTOR
FOR QUALITY CONTROL



THE THS/3F METAL DETECTOR IS RECOMMENDED FOR USE ON MULTI-PRODUCT LINES, WHERE THE INDIVIDUAL PRODUCTS HAVE VERY DIFFERENT CONDUCTIVITY CHARACTERISTICS

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



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THS/3F MULTI-FREQUENCY METAL DETECTOR



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 (D.S.P.) 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 CHARACTERISTICS



- Very high sensitivity to all magnetic and non-magnetic metals, including stainless steel
- Extremely high immunity to environmental interference
- Automatic balance
- Digital signal processing (D.S.P.) 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.

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
- Synchronised mode, with immediate activation of alarm and ejection relays synchronised by photocell

INSTALLATION DATA

- Power supply: 115/230 Vac, -22 %/+10%, 48-62 Hz; 60 VA
- Operating temperature: -10 + +55 °C
- Relative humidity: 0 -95% (without condensation)
- RS232 serial interface
- Possibility of connection to a computer or other control system, e.g. check-weigher
- 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. Up to 23 decoding standards for automatic selection of the product
- RS485 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.

APPLICATIONS

- Food and Chemical Industries, Pharmaceutical.



CONTROL PANEL ON CONVEYOR CONTROL SYSTEM



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

www.ceia.net

Aja Ltd

Unit 6 Heathlands Industrial Estate,
Twickenham
TW1 4BP
Tel:- 020 8892 8900 Email:- sales@aja-uk.com



Zona Ind.le 54/G, 52040 Vicinaggio - Arezzo (ITALY)
Tel.: +39 0575 4181 Fax: +39 0575 418296
E-mail: qa-detectors@ceia-spa.com Web: www.ceia.net