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Thermo Scientific APEX 500 Metal Detector

High performance metal detection for conveyor and dropthrough applications

The Thermo Scientific™ APEX 500 Metal Detector delivers high sensitivity and an extensive feature set enabling you to protect your brand, comply with retailer codes of practice and meet legal requirements. With the APEX 500 metal detector in your production line, you can quickly and completely achieve your quality goals, protect expensive downstream production equipment and be assured your production shipments are free from any unwanted metallic foreign objects.

Thermo Scientific™ APEX 500 Metal Detector combined with one of many possible regional conveyor designs.

Features

- Multi-coil design with high sensitivity and low false rejects
- Dual frequency /dual gain operation for application flexibility
- Intellitrack XR (IXR) advanced signal processing software
- Available in a wide range of aperture sizes to optimize performance
- Standard epoxy-lined aperture and stainless steel case
- IP69K washdown rated to minimize the cost of ownership
- All construction materials FDA approved
- Easy to install with all electronics integral to the metal detector
- Unique icon-driven interface with multilingual Help and Auto Learn functions

Options:

- Automatic performance verification with AuditCheck
- Mounting conversion kits to make installation easy
- Field compression flanges to minimize the metal-free zone
- Remote-control panel
- Modbus serial and Ethernet communications
- Alarm and fault output packages and reject indicators/reset switches
- Washdown isolation transformers to shield the metal detector from power line problems
- Thermo Scientific™ conveyor systems designed locally to your specifications

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Thermo Scientific APEX 500 Metal Detector Specifications

Application and metal detection specifications	
Frequency Range	50 to 460 kHz, one or two configured in the factory or by service in the field
Foot Pattern and Aperture Placement	Refer to layout drawings, varies by aperture size and orientation
Aperture Sizes*	Width: 50 to 1750 mm, Height: 50 to 900 mm
Construction	Stainless steel 304 straightlined case and ABS plastic front panel
Human Machine Interface (HMI)	Backlit display and touch panel with icons/help text
Product Speed	0.5 m/min (1.7 ft/min) to 1000 m/min (3,300 ft/min)
Output Types	6 Relay outputs; Relays: 250 volt AC 2 amp max. 50 volt DC 1 amp max
Output Allocation (Software Selectable)	Reject 1, Reject 2, Auditcheck, Fault, Alarm, Warning, QA Lamp
Input Types	6 Inputs - Active 12VDC and auxilary supply for input sensors, NPN sinking
Input Allocation (Software Selectable)	Speed Sensor, Keylock, Product Select 1, Product Select 2, Infeed PEC, Reject Confirmation 1 and Bin Full, External Supression, External Alarm, External Reset
Communications Options	ModBus serial or Ethernet modules
Help-Text Languages	English, Spanish, French, German, Italian, Chinese, Czech, Russian, Polish, Thai, Korean and Brazilian Portuguese

**Not all combinations possible; contact Thermo Fisher for details.*

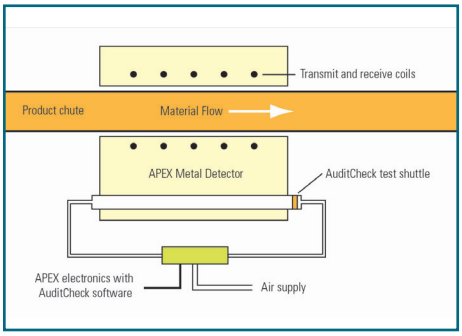
Environment, electrical and operational specifications	
Ambient Temperature	-10° to 40°C (14° to 104°F)
Product Temperature in Aperture	-10° to 55°C (14° to 131°F), Kynar® liner option -10° to 120° C (14° to 248° F)
Maximum Washdown Temperature	80° C (176° F), optional Kynar liner cannot be washed down
Relative Humidity	20% to 80% non-condensing
Electrical Supply	85 volts to 260 volts AC single phase plus earth ground; 47 Hz to 65 Hz, 100 watts maximum

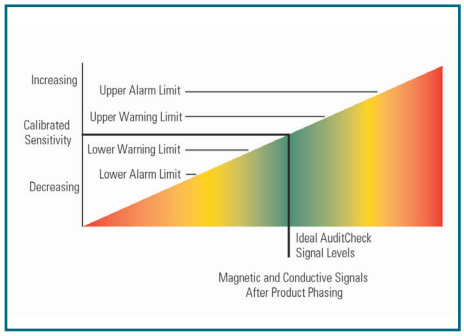
Conformance tests and certifications	
Protection Ratings	IP69K
Export and Safety	cCSAus, CE, ATEX zone 22
Manufacturing Quality	ISO9001 certified

AuditCheck Performance Verification System

In bulk applications where material is moving rapidly it's difficult to periodically test a metal detector by inserting test pieces in the product flow. This is where the AuditCheck option comes in. AuditCheck automatically passes an air-driven test shuttle through the metal detector and compares both the magnetic and conductive signals to calibrated levels. This operation goes far beyond a simple go/no-go test. Because signal levels are measured and compared to acceptable levels, problems can be identified before they happen. Since the AuditCheck is integral to the APEX software, it is failsafe and a complete record of all tests is available for full traceability.

Auditcheck diagram and principle of operation





Find out more at **thermofisher.com/APEX500**

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