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Application and metal detection specifications (Sentinel 1000 Metal Detector)	
Frequency Range	50 to 1000 kHz, Selectscan single selectable frequency
Sensitivity	Detects contaminants up to 25% smaller in volume
Footprint and Aperture Placement	Same as APEX 500 Metal Detector for easy upgrade
Aperture Sizes*	Width: 75 to 2000 mm, Height: 75 to 600 mm. Increments of 25 mm up to 200 mm and 50 mm above 200mm
Construction	Stainless steel 304 straightline finished case. Food contact-safe ABS front panel
Metal Free Zone	1.5-2x smallest aperture dimension, can be reduced with optional flanges
Human Machine Interface (HMI)	7 in (178 mm) diagonal, high-intensity color touch screen
Product Speed	0.5 m/min (1.7ft/min) to 80 m/min (262 ft/min). Encoder input highly recommended.
Output Types	8 relay outputs; 250 volt AC 2 amp max. 50 volt DC 1 amp max 8 digital sourcing (PNP) outputs, 24VDC with capacity of any two at 500 mA, the rest at 30 mA average each
Output Allocation (Software Selectable)	Reject 1, Reject 2, Shutdown, Alarm, Warning
Input Types	8 Inputs; Active 24VDC switch selectable as NPN or PNP
Input Allocation (Software Selectable)	Speed Sensor, Infeed Photo Eye, Reject Confirmation and Bin Full, External Alarm, External Reset
Languages	English, Spanish, Italian, French, Chinese, German, Dutch, Portuguese, Polish, Russian, Czech, Thai

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

Environmental, electrical and operational specifications	
Metal Detector Ambient Temperature	-10° to +40°C (+14° to +104°F)
Product Temperature in Aperture	-10° to +55°C (+14° to +131°F)
Maximum Washdown Temperature	55°C (131°F)
Relative Humidity	20% to 80% non-condensing, one way breather valve standard
Electrical Requirements	100 volts to 240 volts AC single phase plus earth ground; 50 Hz to 60 Hz, 0.6 to 1.2 amps
USB Port	Watertight USB 2.0
Ethernet Port	Watertight Ethernet port for Teamviewer connection. This port is not available when the Sentinel is used in combination with a checkweigher (combo system).

Conformance tests and certifications	
Protection Ratings	IP69K
Export and Safety	cCSAus, CE
Manufacturing Quality	ISO 9001 certified

Available options

- Welded field compression flanges to reduce metal-free zone in limited space applications
- Heavy-duty flip up polycarbonate control panel cover for extra protection
- LED alarm/fault lights and horn
- A wide variety of integrated conveyors available
- Conveyor adapter kits available for existing conveyor installations

Find out more at **thermofisher.com/sentinel1000**

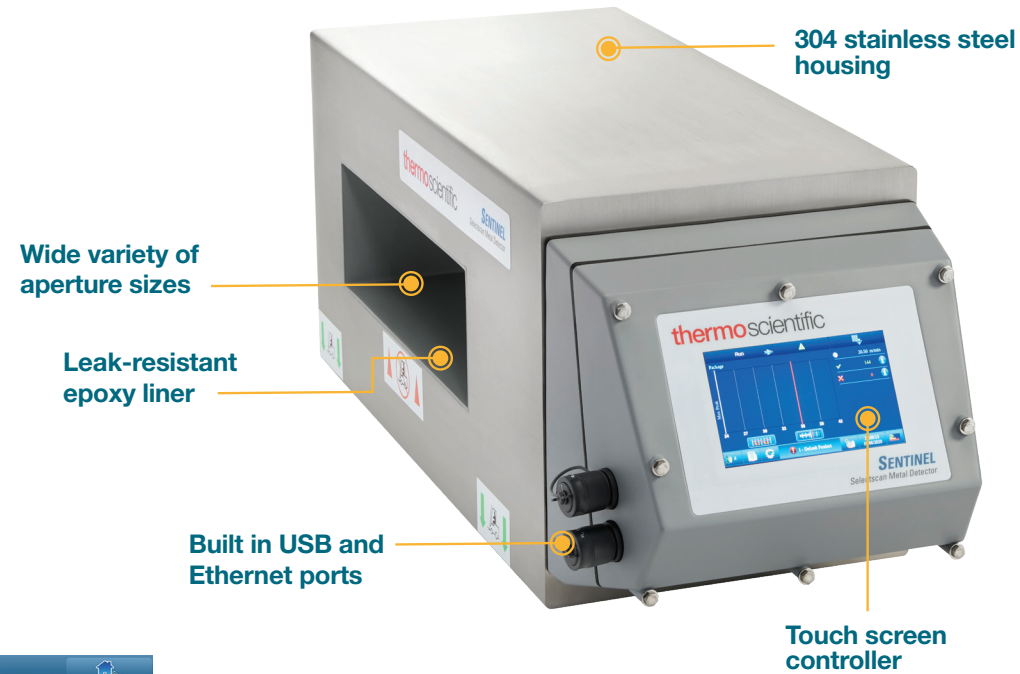**ThermoFisher**
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Achieve a higher level of food safety and quality

Maximize consumer safety and brand protection with the Thermo Scientific Sentinel 1000 Selectscan Metal Detector

ThermoFisher
SCIENTIFIC

The Thermo Scientific™ Sentinel™ 1000 Selectscan Metal Detector ensures a high probability of detecting metal contaminants, increasing safety and operational efficiency.

304 stainless steel housing

Wide variety of aperture sizes

Leak-resistant epoxy liner

Built in USB and Ethernet ports
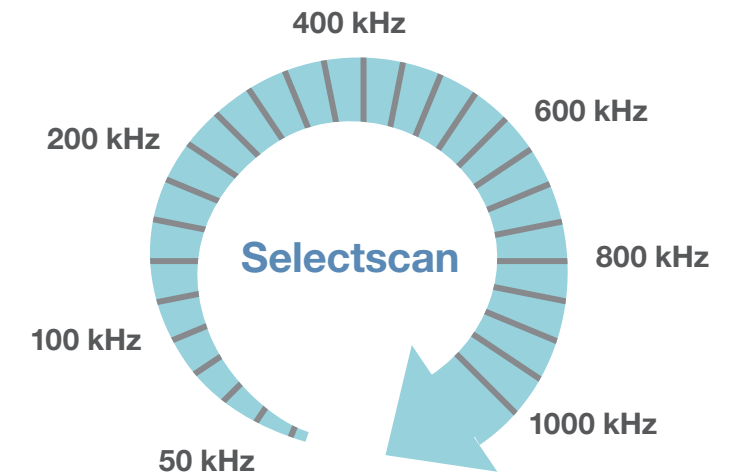
Touch screen controller

- Intuitive software menus
- Advanced statistics and logging for traceability
- Autolearn: Rapid set up for optimal detection
- Application memory
- Multiple languages

Selectscan

Select the ideal frequency for your application, from 50 to 1000 kHz, to maximize the probability of detection.

400 kHz
600 kHz
200 kHz
800 kHz
100 kHz
Selectscan
1000 kHz
50 kHz

Autolearn

Learn Progress
Learn clean   Empty belt   Choose contaminants   Learn contaminants   Results

Score 80
Score 80
Score 80

2.00mm Ferrous
2.00mm Non-ferrous
Frequency: 450 kHz
2.00mm Stainless

Autolearn rapidly guides a user through product set up to maximize operational efficiencies and detection performance, supporting improved plant efficiency.

Features and benefits

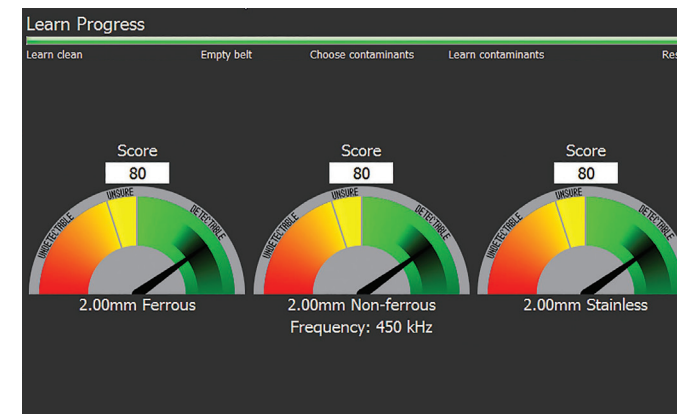| Performance	Meets compliance requirements with global food safety standards and retailer codes of practice with up to 25% improved sensitivity
Selectscan	Select the best frequency for your application from 50-1000 kHz to increase the probability of detecting ferrous, non-ferrous and stainless steel contaminants
Autolearn	Rapidly establish optimal settings to improve operational efficiency
Touch screen controller	Intuitive menu layouts for ease of operation
Noise Scan	Avoid frequencies susceptible to electromagnetic interference from the plant environment to optimize performance and increase product safety
IP69K	IP69K rating for harsh environments requiring high pressure sanitation

Applications

Superior performance for a wide variety of applications

Powders, grains, nuts

Pasta

Fish

Convenience foods

Cereal

Bakery

Confectionery

Meat and poultry

Personal care and cosmetics