

Thermo Scientific Sentinel Multiscan Metal Detectors for combination systems

Your brand is your most valuable asset; protect it with integrated leading metal detection technology and checkweighing.

The Thermo Scientific™ Sentinel™ metal detector with multiscan technology is designed to achieve the highest level of food safety. For a complete end-of-line quality system, it can be integrated into a Thermo Scientific™ Versa checkweighing system, reducing the total footprint while combining important functions like program changes, alarms and rejection statistics. The metal detector can be operated from its front panel and also from a window displayed on the checkweigher screen, providing the ultimate in flexibility.



Thermo Scientific™ Sentinel™ 3000 Metal Detector has a compact design



Global VersaWeigh Checkweigher Combo

Features

Sentinel combo systems can be configured with the reduced size Thermo Scientific™ Sentinel™ 3000 Multiscan Metal Detector mounted on the checkweigher weigh frame to save space. For higher sensitivity a combo can also be configured with a Thermo Scientific™ Sentinel™ 5000 Multiscan Metal Detector mounted on an external infeed conveyor.

- Available with Thermo Scientific™ Versa Weigh™, Thermo Scientific™ Versa 8120, Thermo Scientific™ Versa GP and Thermo Scientific™ Versa Rx checkweighers
- Two Sentinel models to optimize your application and available space
- Multiscan technology, maximizing sensitivity and probability of detection
- Standard welded flanges, minimizing conveyor length
- Easy-to-use touchscreen with set-up wizards
- Detailed graphical displays for statistics, fine-tuning and troubleshooting
- Full Sentinel interface also available in a window on the checkweigher user interface
- All balance functions implemented in software
- Fe, non-Fe and 316 SS test pieces included to fit the application

Options

- Heavy-duty flip-up polycarbonate control panel cover for extra protection

Application and metal detection specifications (Sentinel 3000 metal detector model integral to the checkweigher)	
Frequency Range	50 to 1000 kHz, Multiscan runs up to five frequencies
Sensitivity	Detects contaminants up to 15% smaller in diameter than the Thermo Scientific™ APEX 300 metal detector (subject to application testing)
Foot Pattern and Aperture Placement	Refer to layout drawings, varies by aperture size and orientation
Aperture Sizes*	Width: 100 to 450 mm, Height: 75 to 250 mm
Construction	Stainless steel 304 straightline finished case and front panel
Metal Free Zone	Standard 50 mm flanges to reduce the metal free zone
Human Machine Interface (HMI)	7 in (178 mm) diagonal, high-intensity color touchscreen
Product Speed	0.5 m/min (1.7 ft/min) to 80 m/min (262 ft/min)
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, Fault, 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 1 and Bin Full, External Alarm, External Reset
User Interface Languages	English, Chinese, Dutch, French, German, Italian, Portuguese, Russian, Spanish, Czech

*Not all combinations are possible; contact Thermo Fisher Scientific 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

Conformance tests and certifications	
Protection Ratings	IP69K (Sentinel metal detector only; refer to checkweigher ratings by model)
Export and Safety	cCSAus, CE
Manufacturing Quality	ISO9001 certified

Sentinel 3000 and 5000 combo units are also available with the Versa checkweigher models shown here.



Versa 8120 Checkweigher



Versa GP Checkweigher



Versa Rx Checkweigher

Find out more at thermofisher.com/sentinel3000