



# OBSERVER Metal Detector

It even finds stainless steel in aluminum packages



- Keypad overlay with 9 keys and 3 LEDs
- Four-line, 20-character, backlit LCD
- Interactive prompts for operator guidance
- Adjustable speed for conveyor belt control
- Displacement proportional to the length for the "metal signal" up to the point of rejection
- Position-specific rejection by light-barrier synchronization
- Rejection monitoring optional
- RS-232C/RS-422 interface port available for connection of a printer for report generation
- Capability for centralized data acquisition by networkable QA system on request.
- Belt control by frequency converter

The OBSERVER metal detector is an exciting breakthrough in the field of metal detection! Until now, it has never before been possible to detect magnetized iron and stainless steel contaminants in aluminum-packaged products using a metal detector. Unlike conventional metal detectors, the new technology incorporated into the OBSERVER is impervious to interference or effects caused by the product to be examined. Therefore, the unit always provides the optimal detection sensitivity.

The new Sartorius OBSERVER metal detector is equipped with specially designed sensors based on magnetic field measuring technology. The products to be tested are premagnetized on the infeed side of the belt, and the magnetic field sensor unit reliably detects remanent magnetism of any metal particles present, even at high belt speeds. Moreover, the OBSERVER detects stainless steel particles if shearing or deformation has altered their crystal structure, as is common during a normal production run, and they have become magnetizable as a result.

Detection width	300 mm
Detection height	Up to ca. 70 mm per sensor unit
Control outputs (relay   zero current signal principle) for	Metal – 2 potential-free change-over switches Error – 1 potential-free change-over switch Test – 1 potential-free change-over switch
Metal signal	Adjustable displacement time/length Adjustable rejection time/length
Product speed   belt speed (V)	Vmax = 1.5 m/s (higher speed available on request)
Data interface	Bidirectional RS-232C/RS422 (Ethernet via ComServer)
Display	Dot matrix, 20 mm plus symbols showing operating state; backlit
Enclosure (housing)	Material: Sensor: polystyrene (PS18), grayish white Conveyor belt frame and electronics: AISI 304 stainless steel Type of protection acc. to DIN 60529: Washdown-resistant and dust-tight acc. to IP65 (NEMA 4X)
Temperature range	0°C to +40°C
Power requirements	100–240 VAC (–15/+10%), 47–440 Hz
Power consumption	Approx. 50 VA, without downstream accessories
Net weight	Approx. 70 kg incl. conveyor belt
Operating height	650 to 1,100 mm
Belt width	300 mm
Total width	1,600 mm incl. rejector (other lengths available on request)

Sartorius Aachen GmbH & Co. KG  
Am Gut Wolf 11  
52070 Aachen, Germany  
Phone +49.241.1827.0  
Fax +49.241.1827.210  
[www.sartorius.com](http://www.sartorius.com)

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