GENIUS ONE
Control unit for Sesotec metal detectors and separators

- Easy and safe to use thanks to the touchscreen set-up's graphical user interface
- Fast network integration thanks to optional data transfer and control interfaces
- Menu-guided, integrated audit check for quality monitoring in production
- Audit-safe: complies with all common standards for use in the food industry at critical control points (CCPs)
- Optimum machine protection thanks to outstanding metal detection performance



Easy-to-use 5" colour touchscreen

- Detects magnetic and non-magnetic metal contaminants, even if they are enclosed in the product
- Maximum detection performance with the right detection frequency
- Safe operation: electronics optimally protected from outside interference. Optimum compensation of vibrations and electronic interference for high-performance
- Continued production, even during product changes: changing from one preset product to the next takes just a few seconds
- Flexible use: system data for 300 different products can be entered
- Robust, secure design for tough industrial conditions, featuring protection against contact with dust and water jets (IP65 protection marking), high-quality stainless steel housing (1.4301, glass bead blasted)
- Complete documentation: all operating parameters, events and incidents are recorded on the device in an integrated, password-protected system logbook
- Complete devices with GENIUS ONE Control Unit are available for conveyor belt lines and free-fall applications, as well as vacuum and pressure pipes

Consistent software-based signal processing with GENIUS ONE

The electronics behind GENIUS ONE illustrate what is possible in metal detection technology today. Combined with Sesotec metal detectors, it helps to create an easy-to-use, high-precision metal sensor that can stand up to wear and tear. GENIUS ONE features self-monitoring and auto-learn functions, and it supports HACCP processes through proven audit check routines.
Operating data is automatically recorded in the logbook. With the right interfaces, GENIUS ONE has the potential to be a valuable quality data management tool that can be linked with other devices.

Easy operation

GENIUS ONE is easy and fast to operate. All essential status information and function-related notifications are displayed on the 5" touchscreen. The menu guides users through various tasks.

The operating concept was developed in line with the ISO 9241-110 dialogue principles to achieve a high degree of usability:

The key dialogue criteria include suitability for the task, self-descriptiveness, controllability, conformity with user expectations, error tolerance, suitability for learning and suitability for individualisation.

The user interface has been optimised with usability criteria in mind and in consideration of the dialogue principles.

Quick access to essential functions such as the logbook, product teach, product changes and system settings makes GENIUS ONE fast and easy to operate. What is more, users can change the menu language with just two clicks, regardless of the menu currently being displayed.

Teach in products and compensate product effects

Multi-product storage
Device settings for 300 different products can be stored. Product changes are fast and easy, including an option to track batches by entering and searching for a batch number.

Auto-set system and product compensation
This feature automates the entry of product-specific device settings. By automatically determining the best device setting for optimum detection and outstanding noise immunity, it also prevents false alarms due to product effects, which can be caused by salt, moisture and other factors.

Full Teach function
Set products for all device frequencies while maintaining manual pre-installed settings. Users can select the working frequency based on the learning results.

Quick Teach function
Simplified learning process for product compensation following changes in factors such as product composition or batch.

Detection technology – stability and precision

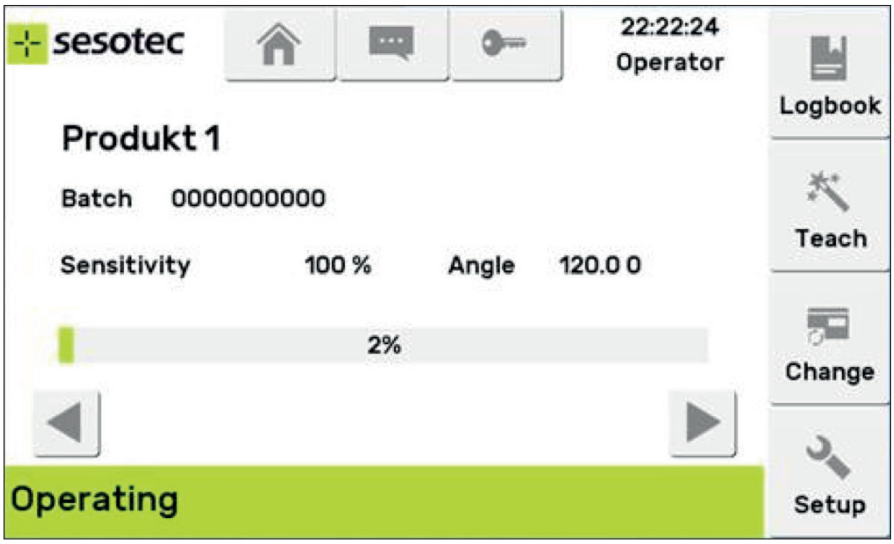
Multi-frequency technology (optional)
Choose from two detection frequencies during automatic product setting for maximum sensitivity to all kinds of metal, even with different products.
➔ Best detection results for different products

Direct digital synthesis (DDS)
Accurate digital signal synthesis of detection frequencies guarantees constant, precise transmission signals.
➔ Accurate input: the basis of accurate measurement and correct output

Stop-and-go operation
Enables safe and reliable metal detection even under stop-and-go conditions such as during discontinuous conveyance.
➔ Suited for stop-and-go operation

Automatic balance control
Compensates for environmental influences and temperature fluctuations, as well as mechanical- and age-related changes in the detection coil and components.
➔ Interference-free operation anywhere within a facility

Product tracking
Makes it possible to automatically adapt product compensation in the event of slow product changes due to factors such as composition, moisture or thawing for optimum detection sensitivity without false alarms at all times.
➔ Interference- and disruption-free operation even with gradual product changes



Robust, reliable, maintenance-friendly

Self-monitoring system
Constant self-monitoring of all key system functions of the control unit and the linked detector.
➔ Reliable operation

Reject control system
Precise control and function monitoring of linked separation systems with compressed air, reject and fill-level monitoring.
➔ Reliable removal of detected metal

Robust design
Ensures accurate metal detection even in tough industrial settings and under extreme mechanical loads.
The stainless steel housing and easy-to-clean design with IP65 protection marking is ideal for use in the food and pharmaceutical industries, making it suitable for other industrial applications as well, such as in the rubber or plastics processing industry.
➔ Long service life

Universal power supply
Universal power supply for the 100-240 VAC (+/-10%), 50/60 Hz input voltage range for global use of the device without modification or adaptation.
➔ Easy installation worldwide

Data exchange hardware

Optional interfaces
- Easy system integration by using an RS232 or RS485 serial interface
- Ethernet port (TCP/IP 100 Mbit/s) for network capability
- Profibus interface

➔ Easy system integration by attaching an appropriate interface

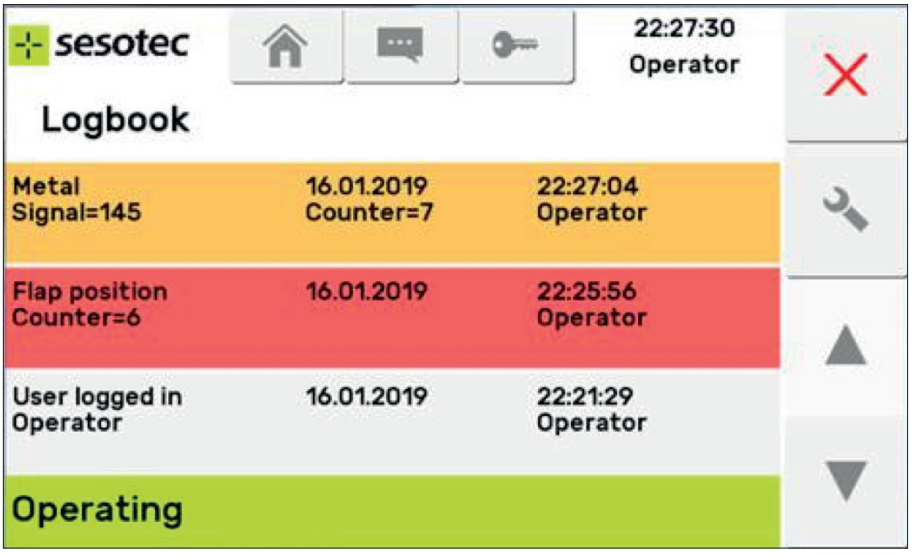
QA documentation functions

Audit check
Flexibly configurable audit routines in line with HACCP, IFS or BRC standards with automatic recording of test object used, date, time and user ID.
➔ Secure and reliable QA tool

Logbook
The logbook function can document up to 1,500 events and incidents and make them available for audits and internal evaluation, plus it prevents any manipulation or tampering in the device. The function keeps records of events and incidents such as attempts to turn the system on or off, product or batch changes, metal detection reports, audit check routines, setting changes, detailed error messages with date and time, and current users.
➔ Complete documentation in the device

Password protection
Data and settings are protected from changes. Users must enter the correct password to change or delete data and settings, plus the system offers four different user levels with different authorisations.

Counters
A variety of counters are available for record-keeping and statistics. Errors, metal and products can be tallied in different categories such as batch, user, product or device.
➔ Equipped for analysis



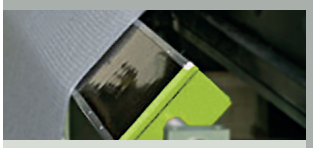
Logbook screen with metal detection reports, system error reports and prior logins

Sesotec GmbH

Regener Straße 130
D-94513 Schönberg
Germany
Tel. +49 8554 308-0
Fax +49 8554 2606
info@sesotec.com
www.sesotec.com

genius-one-pr-en-0319-v1.0

Sesotec system world



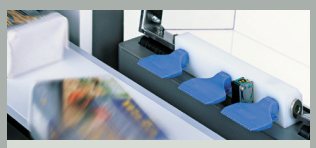
Detecting and separating contaminants:

Removing contaminants:
- metals
- plastics
- glass
- ceramics, porcelain, stones
- and many others

Removing from (good material):
- bulk materials
- liquids and pastes
- individually packaged product
- packed and loose items

Product types:
- end-products (food, textiles, plastics etc)
- industrial raw materials
- recycled materials

can be integrated into
all types of conveyor systems



Detecting and separating sub-standard products:

Qualitative defects:
- incorrect colour
- agglomerations
- breakages
- air inclusions in packs
- incorrect positioning / distribution

Quantitative defects:
- incorrect weight
- count errors (incorrect number of items in package)

Product types:
- end-products (food, textiles, plastics etc)
- industrial raw materials
- recycling materials

can be integrated into
all types of conveyor systems



Sorting mixed materials into single fractions:

Types of material:
- glass
- plastics
- metals
- and many others

Delivery flows:
- bulk materials
- individually packaged product

can be integrated into:
- conveying systems
- bulk material flows

For further information or to discuss your particular application contact one of our specialists.

Operating Companies:

Sesotec ASM S.r.l.
Bologna
Italy
info.asm@sesotec.com
www.sortingasm.com

Sesotec Inc.
Bartlett
USA
info@sesotec.us
www.sesotec.us

Sesotec Canada Ltd.
Cambridge
Canada
info@sesotec.us
www.sesotec.ca

Sesotec Pte. Ltd.
Singapore
info@sesotec.com.sg
www.sesotec.com.sg

Sesotec Pvt. Ltd.
Pune
India
info.india@sesotec.com
www.sesotec.com

Sesotec Shanghai Co. Ltd.
Shanghai
China
enquiry@sesotec.com.cn
www.sesotec.com.cn

Sesotec Thailand Ltd.
Bangkok
Thailand
info@sesotec.com
www.sesotec.com

... and more than 40 agencies worldwide

Made in Germany

www.sesotec.com

Choose the Original
Choose Success!