

# The Sesotec 6 priorities concept



## ☒<sup>P1</sup> Conformity & Accuracy

Highest detection sensitivities even with strong product effects due to single or dual frequency technology, automatic product compensation and digital signal processing.

- Reliable rejection of impurities from 0.48 mm without interrupting the conveying flow with the Quick Flap reject system
- The device supports IFS-compliant production by reliably eliminating metals in advance during material delivery and internal material distribution, not just detecting them in the end product.
- UL/CSA certified

## ☒<sup>P2</sup> Safety for people & product

Safe rejection of metals through features such as compressed air monitoring, fill level and flap circuit monitoring delivers products to the consumer without contamination.

- Definition of different user groups with specific rights facilitates access protection
- Emptying of the intermediate hopper by means of double sluice without interruption of conveying and optimum safety for the operating personnel
- Type-tested design according to ATEX Directive 2014/34/EU for use in potentially explosive atmospheres created by the presence of dew

## ☒<sup>P3</sup> Simple operating concept

Via a 5" color touch display with intuitive menu navigation, you can configure our systems easily and quickly for various applications. Operating errors are virtually eliminated.

- Simple and intuitive auto-learn function
- Integrated product memory for up to 300 products
- Quick access to important system functions via the start screen
- Insight.NET or Insight.WEB for visualization, logging, remote control and diagnostics



## ☒<sup>P4</sup> Sophisticated hygiene concept

Robust construction especially for products with high hygienic requirements.

- Complete structure made of stainless steel and plastics in contact with the product, suitable for the food sector (according to EC 1935/2004)
- Hygienic design of the separation unit with a cleaning door on the collection container
- Residue-free and automatic emptying of the collection container by means of rotary flaps after each rejection
- IP 65 (usually dry cleaning)

## ☒<sup>P5</sup> Efficiency in all areas

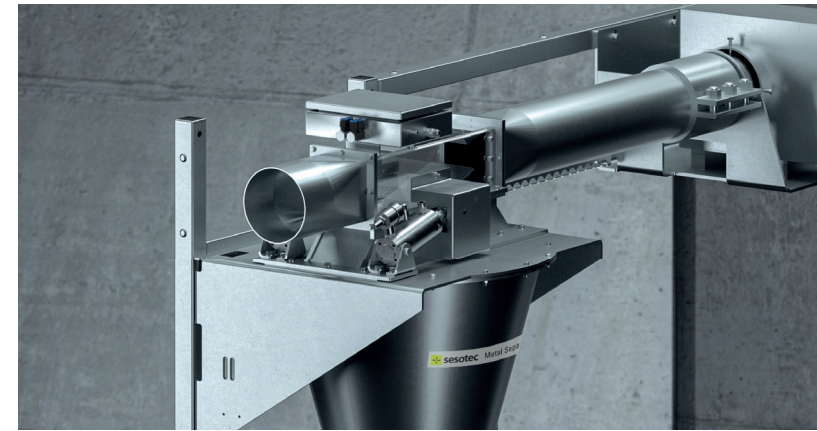
Sensitivity adjustment and high interference immunity prevent false alarms. Problems are avoided and profitability is increased.

- Easy integration into existing pipelines due to various installation variants
- Reliable detection even at high conveying speeds up to 20 m/s (optionally up to 25 m/s)
- Suitable for vacuum and pressure conveying due to its universal design
- Automatic function test module (function check of the coil for 1–3 test pieces made of FE, NFE, V2A)

## ☒<sup>P6</sup> Reliable, fast service

With warranty, on-site and and remote services as well as training courses, your operation runs smoothly with us.

- Wear and spare parts package for rapid resumption of production
- Remote service via Teamviewer Pilot app
- Customized training for operation, service and maintenance of devices
- High overall plant efficiency and stable operation
- At least 10 years warranty on spare parts availability



GF 4000 GO (EX)

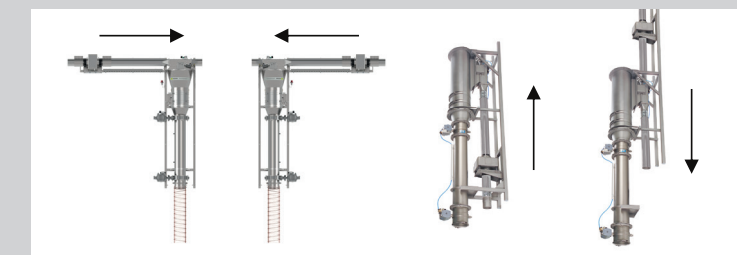
### More info

<https://www.sesotec.com/emea/de/produkte/groups/metallsuchsysteme-fuer-pneumatische-foerderung>



## Technical data

Type designation	GF 4000-50-GO (EX)*	GF 4000-80-GO (EX)*	GF 4000-100-GO (EX)*	GF 4000-120-GO (EX)*	GF 4000-150-GO (EX)*
Connection diameter (inlet/good outlet) A	50x2	84x2	104x2	129x2	154x2
Connection diameter (optional)	54x2	80x2	-	-	-
Conveyor direction	horizontal/vertical	horizontal/vertical	horizontal/vertical	horizontal/vertical	horizontal/vertical



	Horizontal conveying	Vertical conveying
From left to right	✓	✗
From right to left	✓	✗
From bottom to top	✗	✓
From top to bottom	✗	✓

Scope of delivery	Compact unit with integrated metal detection coil, dust-tight** separating unit with collecting vessel, two rotary flaps for continuous and discontinuous suction or pressure conveying and remote control unit GENIUS ONE (EX); inlet and crop outlet with smooth pipe connection spigot.
Grain shape	Powder**, fine-grained bulk materials, granules
Grain size max.	Ball Ø < 8 mm
Flowability	Good
Property	Dry, non-abrasive, possible product effect (intrinsic conductivity of the product) can be compensated, minimum ignition energy ≥ 3 mJ
Material flow	Vacuum or pressure conveying (flight conveying)

Conveying method: No thrust plug conveying but constant flight conveying



## Option

Automatic function test module	For ongoing function checks without additional effort
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## Accessories

INTERLINK module	Communication module for digital integration of Sesotec devices into central company networks
Insight.NET & Insight.Web	Visualization, logging, remote control and diagnostics

\*All devices possible in ATEX version (EX) \*\*Dust-tight in ATEX version

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sesotec



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## Metal separation

# GF 4000 GO (EX)

Detection and separation of metal impurities in fine-grained bulk materials, granules and powders

- Easy integration
- Hygienic design
- Highest detection accuracy
- Simple operating concept
- ATEX version available

**8 mm**  
up to

Grain size

**60°C**  
up to

Bulk material temperature

**20 m/s**  
optional 25 m/s

Conveying speed

# Metal separation in pneumatic conveying lines

Our GF 4000 was specially developed for use in horizontal as well as vertical pneumatic conveying systems with high hygienic requirements. It reliably detects and separates magnetic and non-magnetic metal contaminants from debris, powder and granules. This precise inspection ensures compliance with all major food regulations. Due to its modular design, the GF 4000 can be easily integrated into existing pipelines. For explosive environments, we offer the GF 4000 in a type-tested ATEX version up to zone 20 (inside) and up to zone 21 (outside). This version has a completely dust-tight separating unit.

## Simple integration

The modular design and matching pipe connections allow easy integration into existing pipelines – for vacuum and pressure conveying in horizontal or vertical design.

## Reliability

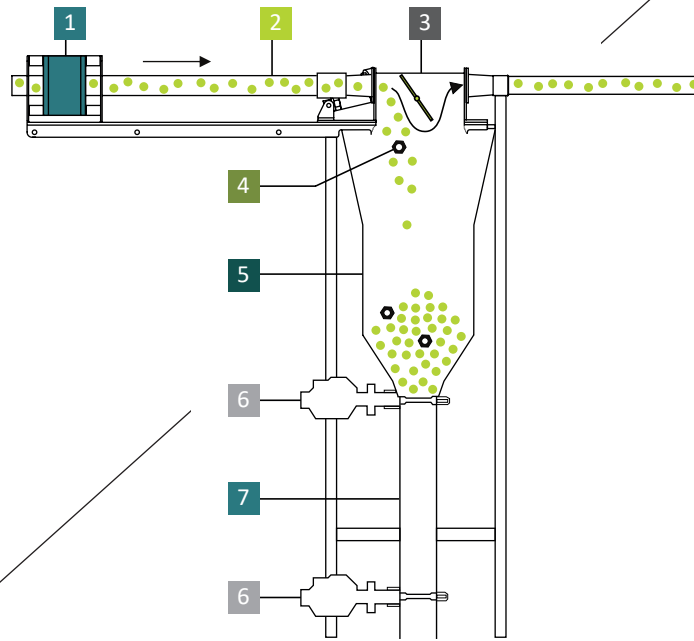
Safe discharge of impurities from 0.48 mm without interrupting the conveying flow – even at high conveying speeds.

## Hygienic structure

Construction with separating unit and a cleaning door in the reject container for products with high hygienic requirements.

## Highest detection accuracy

Highest detection sensitivity even with strong product effects due to single frequency technology, automatic product compensation and digital signal processing.



## Functionality

The GF 4000 is available in two versions: for horizontal and for vertical installation. Our diagram shows the operating principle for horizontal flight conveying.

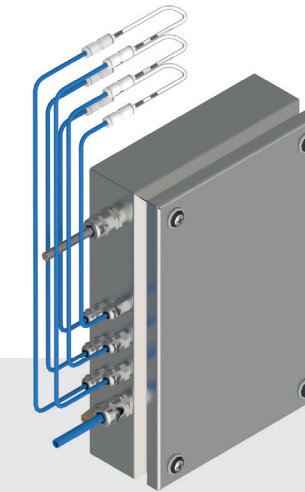
- 1 The integrated detection coil is characterized by optimal metal detection, high mechanical stability and maximum interference immunity.
- 2 The sensing tube made of conductive material avoids static charges and reduces false triggering.
- 3 The innovative „Quick Flap“ rejection system ensures reliable rejection of contaminants while minimizing the loss of good material.
- 4 The contaminated material ...
- 5 ... is discharged into a collection container. The emptying takes place automatically ...
- 6 ... via two rotary flaps ...
- 7 ... and the intermediate container.



## GENIUS ONE Control Unit

A little genius is always on board with the new GF 4000 — thanks to the new GENIUS ONE Control Unit.

- New user interface with touch display for easy operation
- Faster teach-in, fewer operating errors and short operating times
- Cost and time savings through effective operating and service functions
- Optionally available: the INTERLINK module for integration of the GF 4000 into the company network via OPC-UA



## Optional: automatic function test module

The new, optional function test module offers you additional safety and testing without additional effort.

- Automatic function check: pneumatic hose between coil and sensing tube, in which a test body can be moved through the coil by compressed air
- Particularly suitable for devices that are difficult to access
- Time and cost savings by eliminating the need for manual function testing with the flexstick
- No risk of product contamination during testing

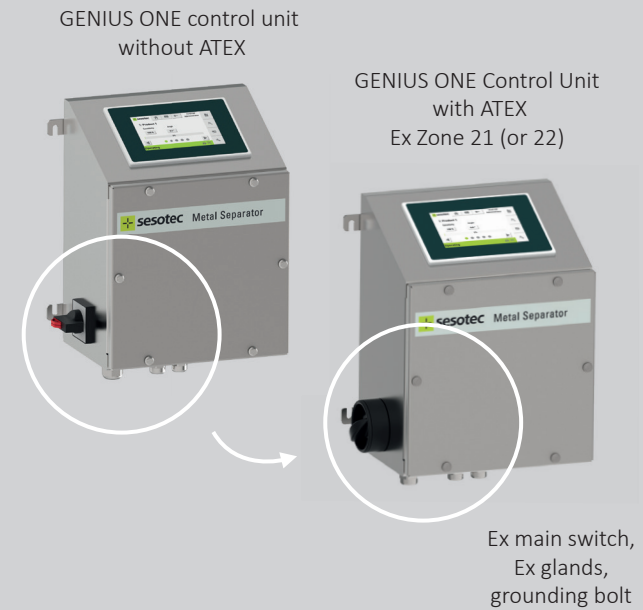
## Type-tested ATEX version

The ATEX regulations from EU Directive 2014/34/EU requires that all equipment used in potentially explosive atmospheres within the EU must comply with the recast ATEX Directive. For potentially explosive atmospheres, we offer the GF 4000 in a type-tested ATEX version up to zone 20 (inside) and up to zone 21 (outside). The type examination eliminates the need for expensive individual acceptance tests and results in significant cost savings and shorter delivery times. The GF 4000 in the ATEX version has a completely dust-tight separating unit.

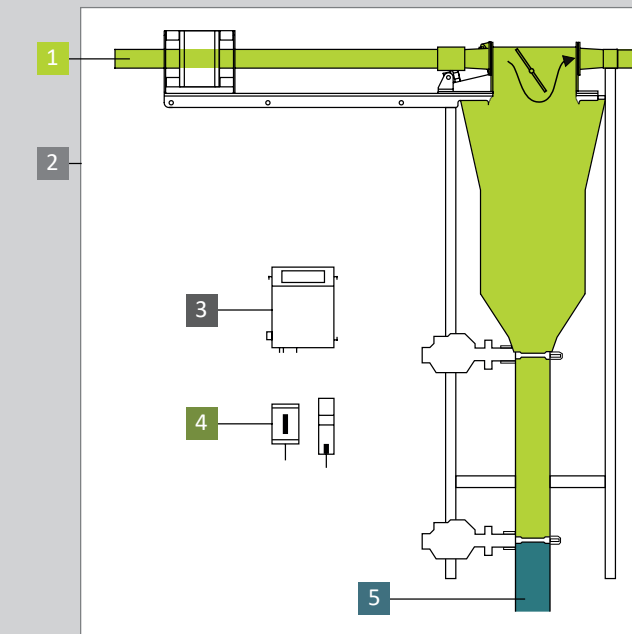


## Structural adaptations and measures for ATEX conformity

- ATEX certified electronic and pneumatic housings, butterfly valves and sensors
- Separator mechanism with dust-tight flap specially designed for the conveying of powders and fine-grained bulk materials in explosive environments
- Grounding concept (grounded metal parts to avoid static charges, PU hose with grounded metal spiral)
- Conductive sensing tube (also included in standard)
- Adapted control unit GENIUS ONE EX with tested dust-right housing, ATEX certified cable entry. Complete with an outside ground connection
- Dust-tight housing, ATEX-certified cable entry and external external ground connection
- Output tests and measurements (conductivity, grounding, temperature measurements)



Ex main switch, Ex glands, grounding bolt



## Dust Ex Zones

- Zone 20**  
Explosive atmosphere **constantly** present
- Zone 21**  
Explosive atmosphere **frequently** present
- Zone 22**  
Explosive atmosphere **rarely** present

Area	Possible Dust Ex Zones
1 Inside the pipeline	20, 21, 22
2 Outside of the metal separator	None, 21, 22
3 At the control unit	None, 21, 22
4 On options (e.g. signal lamp, function button)	None, 21, 22
5 Inside the pipeline in the bad outlet	21, 22