

# Your priorities. Our answers.

## P1 Conformity & Accuracy

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

- Separation of contaminants down to 0.48 mm without interrupting the product flow
- Supports IFS-compliant production through safe metal separation before the end product
- UL/CSA certified

## P2 Safety for people & product

Reliable metal separation through functions such as compressed air monitoring, fill level monitoring and flap position monitoring ensures contamination-free products for consumers.

- Access protection through user groups with specific rights
- Optimal personnel safety through discharge of the intermediate container or double flap without interrupting production
- Explosion-tested design in accordance with ATEX Directive 2014/34/EU

## P3 Simple operating concept

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

- Intuitive auto-learn function including product memory for up to 300 products
- Quick access to important system functions directly via the home screen or Insight.360

## P4 Hygienic design concept

Especially for products with high hygienic requirements, the GF 4000 features an extremely robust design.

- Fully constructed from stainless steel and food-grade plastics (EC 1935/2004) with protection class IP65 (dry cleaning)
- Hygienic separation unit with cleaning door and automatic discharge via rotary flap

## P5 Efficiency in all areas

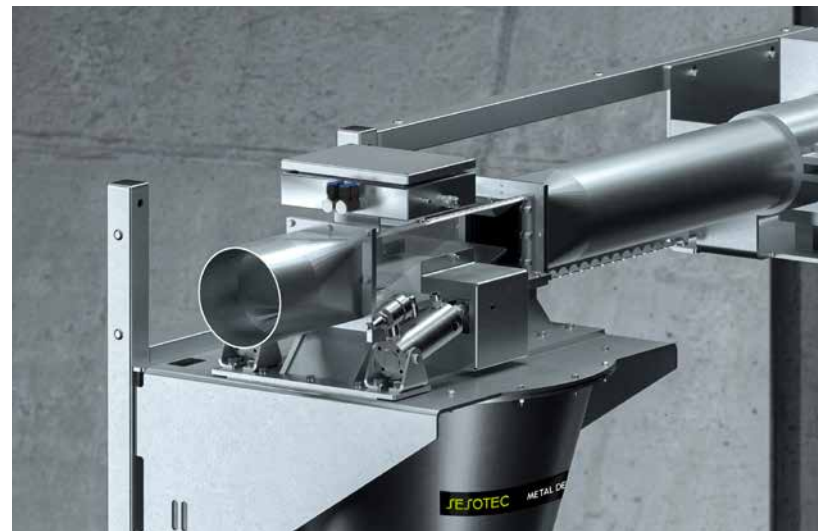
Thanks to sensitivity adjustment and high interference immunity, false rejects are avoided and profitability is increased.

- Universal design for vacuum or pressure conveying for easy integration into existing pipelines
- Reliable detection even at high conveying speeds and control via our automatic function test modul

## P6 Reliable, fast service

With warranty services, on-site and remote support, as well as training, we support you for smooth operation.

- Wear and spare parts package for minimal downtime and at least 10 years spare parts availability guarantee
- Remote service via the TeamViewer Pilot app as well as customer-specific training for operation, service and maintenance



For fine-grained bulk materials in pneumatic conveying systems

### Free consultation

<https://www.sesotec.com/emea/en/contact>

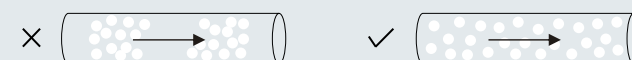


## Technical data

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 (inlet/good outlet) A	50 x 2	84 x 2	104 x 2	129 x 2	154 x 2
Connection diameter (optional)	54 x 2	80 x 2	-	-	-
Conveyor direction	horizontal/vertical	horizontal/vertical	horizontal/vertical	horizontal/vertical	horizontal/vertical

Scope of delivery	Conveying direction	
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.	Horizontal conveying	Vertical conveying
Grain shape	from left to right	from right to left
Grain size max.	from bottom to top	from top to bottom
Flowability	✓	✓
Property	✗	✗
Material flow	✗	✓

Conveying method: No thrust plug conveying but constant flight conveying.



## Option

Stainless steel surfaces treated	For the use of difficult-to-handle materials.
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## Accessories

**Insight.360** offers a wide range of features to help you monitor the manufacturing process. Through optimal traceability, a comprehensive logbook and efficient data management, you are kept informed of the status of your equipment at a times

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



Food Safety

METAL SEPARATION

# GF 4000-GO (-EX)

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

# 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

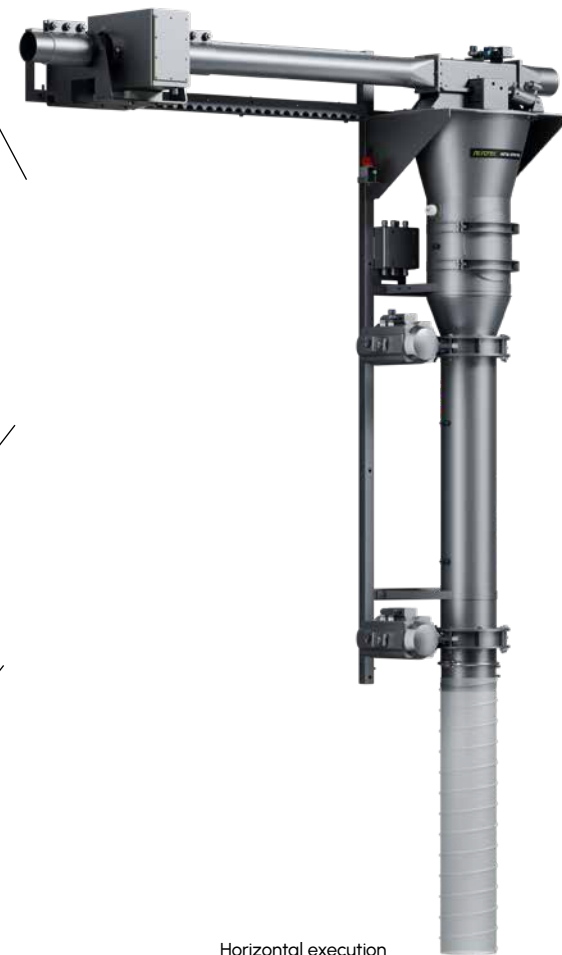
Safe discharge of impurities from 0.48 mm without interrupting the conveying flow – even at high conveying speeds.

## Hygienic structure

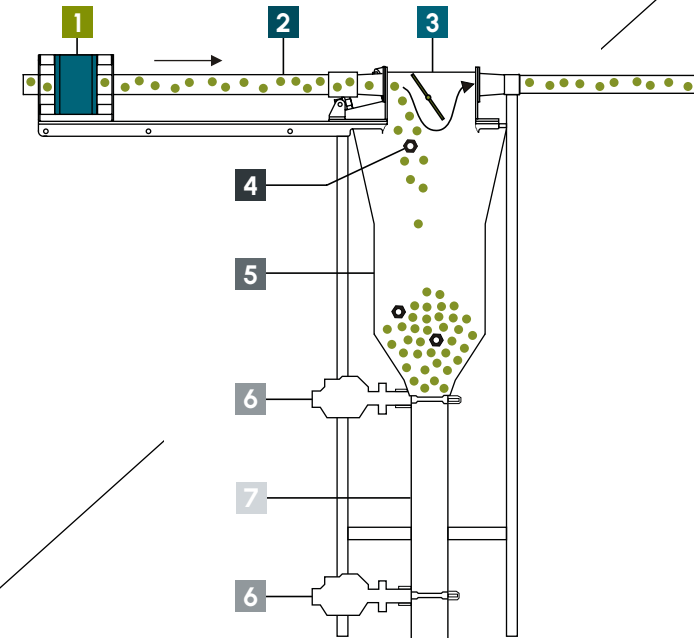
Construction with separating unit and a cleaning door in the reject container for products with high hygienic requirements.

## Highest detection accuracy

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



Horizontal execution



## 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.

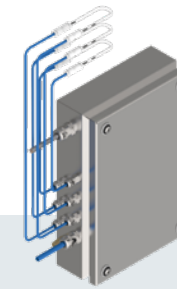
- 1 The integrated detection coil is characterized by optimal metal detection, high mechanical stability and maximum interference immunity.
- 2 The sensing tube made of conductive material avoids static charges and reduces false triggering.
- 3 The innovative „Quick Flap“ rejection system ensures reliable 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 training, fewer operating errors and short operating times
- Cost and time savings through effective operating and service functions
- IOT Ready: USB connection and integrated Ethernet interface for easy data transfer
- Optional available: Insight.360 for integration into the company network via OPC UA or REST API.



## 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

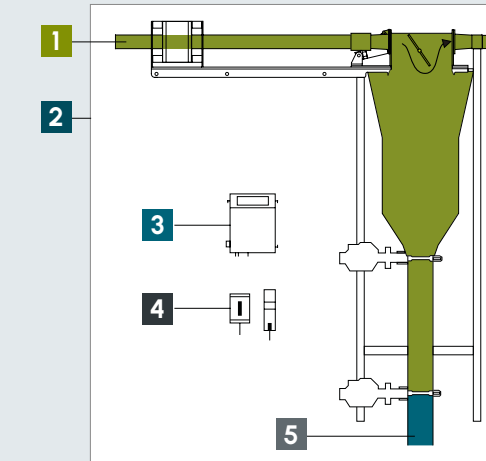
## Type-tested ATEX version

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-tight 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)



## 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