



Product Service

(1) **EU type examination certificate**

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - **Directive 2014/34/EU**
- (3) Number of the EU type examination certificate:

TPS 21 ATEX 092005 0007 X Version 01



- (4) Device: Metal separator
 Type: RAPID 5000-***-GO-EX
 with Control Unit GENIUS ONE-EX / GENIUS ONE
- (5) Manufacturer: Sesotec GmbH
- (6) Address: Regener Str. 130
 94513 Schönberg
 GERMANY
- (7) The model of this device as well as the various permissible versions are specified in the annex to this type examination certificate.
- (8) TÜV SÜD Product Service GmbH certifies as notified body no. 0123 according to Article 17 of Directive 2014/34/EU of the European Parliament and of the Council of the European Union of February 26, 2014, the compliance with the essential health and safety requirements for the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres in accordance with Annex II of the Directive. The results of the audit are set out in the confidential audit report 713193986.
- (9) The essential health and safety requirements are met by conformity with:
- | | |
|-----------------------------|-----------------------------|
| EN ISO 80079-36:2016 | EN ISO 80079-37:2016 |
| EN IEC 60079-0:2018 | EN 60079-31:2014 |
- (10) If the sign "X" is placed after the certificate number, special conditions for the safe use of the device are referred to in the annex to this certificate.
- (11) This EU type examination relates only to the design and construction of the specified device in accordance with Directive 2014/34/EU. Other requirements of this directive apply to the manufacture and placing on the market of this device.
- (12) The marking of the device must contain the following information

Metal separator		II 1/2 D Ex h tb IIIB T85°C Da/Db
		II 1/- D Ex h IIIB T85°C Da/-
Control Unit GENIUS ONE-EX		II 2 D Ex tb IIIB T85°C Db -10 °C ≤ Ta ≤ +50 °C

Certification Body Explosion Protection
 Ridlerstraße 65, 80339 Munich

Munich, 24.03.2021

digitally signed on 24.03.2021
 Dipl.-Ing. Ulrich Jacobs



Annex

- (13) Product Service
- (14) **EU type examination certificate TPS 21 ATEX 092005 0007 X** Version 0

(15) Description of the device:
 The metal separator RAPID 5000-***-GO-EX is used for the examination of bulk materials in free-fall conveying lines in the food, chemical and, in a special version, pharmaceutical industries, but also in other industrial sectors with similar applications and corresponding hygienic requirements.
 The RAPID 5000-***-GO-EX metal separator detects all magnetic and non-magnetic metal contaminants (steel, stainless steel, aluminium, ...) even if they are enclosed in the product. The metal impurities are separated via the separating unit. The metal separator offers the greatest possible safety for the detection and separation of metal contaminants.

The principle of operation is based on the free fall of the product in a vertical pipeline. The detection unit and a mechanical separator (separating unit) are integrated in the pipeline as functionally essential elements.

Both systems are controlled by the GENIUS ONE-EX control unit.
 The metal separator is manufactured for combinations

Interior: Ex zone 20 or Ex zone 20
 Exterior: Ex zone 21 no Ex zone.

The metal separator RAPID 5000-***-GO-EX is available in the following sensing tube nominal widths (***)

50 mm | 80 mm | 100 mm | 120 mm | 150 mm | 200 mm | 250 mm

The following attachment options are available for the RAPID 5000-***-GO-EX series metal separator:

- Automatic test equipment
- Manual test equipment
- Pressure tank
- Signal combination (light +horn)
- Button for function test
- Button for manual rejection
- Main terminal box

Technical data:

Designation	Value(s)
Device type:	RAPID 5000-***-GO-EX
Nominal width:	50, 80, 100, 120, 150, 200, 250 [mm]
Bulk materials	Grain size: Sphere $\varnothing < 8$ mm
Permissible conveying pressure:	Pressureless conveying
Electrical connection:	
Components RAPID 5000-***-GO-EX	24 VDC / max. 0,7 A
Control Unit GENIUS ONE EX	100-240 VAC ($\pm 10\%$), 50/60 Hz approx. 500 mA at 115 VAC, approx. 250 mA at 230 VAC



Product Service

Designation		Value(s)
Throughput:		2000 - 69000 l/h (depending on nominal size of device)
Construction material:		Stainless steel DIN 1.4301 or comparable stainless steels (1.4404, 1.4571)
Ex zones	Interior	20
	Exterior	21
Max. operating frequency detector:		600 kHz
Max. metal parts size		Ø 45 mm / 0.40 kg
Free fall height of the product:		Up to 0.5 m (optionally up to 1m, up to 3 m special design)
Compressed air connection:		5 – 8 bar
Ambient temperature:		-10°C to +50°C
Product temperature (max.)		-10° C to +80° C
Minimum ignition energy		≥ 3 mJ

- (16) Test report: 713193986
- (17) Special conditions for use:
 - Only powder or other products according to the specifications in the technical data (point 3.2 Operating instructions) may be tested with the metal detector/separator.
 - The specific operating data (checklist) agreed with the manufacturer must be observed.
 - The equipment/plant parts upstream and downstream of the metal separator must be designed to be explosion-proof in such a way that no explosion can occur there or that an explosion cannot affect the separator.
 - If upstream and downstream apparatus / plant components are protected by constructive explosion protection measures (e.g. explosion pressure shock resistant design), then the metal separator must be explosion decoupled from these parts. For explosion decoupling, only decoupling systems (protective systems, e.g. burst discs or cellular wheel sluices) with a suitability certificate according to RL 2014/34/EU must be installed.
 - The instructions in these operating instructions must be observed at all times, this applies in particular to the permissible ambient and bulk material temperatures, the permissible free fall height and the exclusion of certain aggressive materials to be conveyed and ambient media as well as the necessity of grounding the equipment.
- (18) Essential health and safety requirements: covered by standards listed under (9).