



# Fraunhofer

## TESTED<sup>®</sup> DEVICE

API Metrology  
API Radian PRO  
**Report No. AP 2601-1710**

DUPLICATE

Statement of  
Qualification

Single product  
Particle Emission  
in Cleanroom  
(atmospheric)

# Statement of Qualification · Single product

**Customer**  
Automated Precision Europe GmbH  
Im Breitspiel 17  
69126 Heidelberg  
Germany

**Tested product**

Category: Process Equipment  
Subcategory: Measuring Equipment  
Product name: API Radian PRO  
(manufacturing date: 9/2025; color: red/black; article number: 65194)

## Test result / Classification

The API Radian PRO is suitable for use under the specified test parameters (room temperature: 22 °C ± 0.5 °C; relative humidity: 45 % ± 5 %) in clean-rooms of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Cycle time: 19.121 s Break time: 0 s Horizontal travel distance: 148.6321 ° Vertical travel distance: 173.1588 ° Rotational speed horizontal: 0.741 rad/s Rotational speed vertical: 0.861 rad/s	<b>1</b>
<b>Overall result</b>	

Please note: Transport damages, incorrect installation, oil leakage, aging behavior, corrosion etc. can influence the test result.

## Random sampling of particle emissions (airborne) at representative sites in cleanroom under atmospheric conditions

Standards/guidelines: ISO 14644-1, -14  
The norms stated generally refer to the version valid at the time of the tests.

Test equipment: Optical particle counter:  
LasAir II 110 and LasAir III 110 with measuring ranges  $\geq 0.1 \mu\text{m}$ ,  $\geq 0.2 \mu\text{m}$ ,  $\geq 0.3 \mu\text{m}$ ,  $\geq 0.5 \mu\text{m}$ ,  $\geq 1.0 \mu\text{m}$  and  $\geq 5.0 \mu\text{m}$

Test environment parameters:

- Cleanroom Air Cleanliness Class (according to ISO 14644-1):..... ISO 1
- Airflow velocity:.....0.45 m/s
- Airflow pattern:..... vertical laminar flow
- Room temperature: .....22 °C ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:

- Cycle Time:..... 19.121 s
- Break time: ..... 0 s
- Horizontal travel distance:.....148.6321 °
- Vertical travel distance:..... 173.1588 °
- Rotational speed horizontal: .....0.741 rad/s
- Rotational speed vertical:..... 0.861 rad/s

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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Report No. first document

Stuttgart, February 13, 2026  
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Business unit Testing and Certification

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Report No. current document

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Place, current date

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on behalf of   
Dr.-Ing. Frank Bürger, head of business unit Testing and Certification