



Fraunhofer

**TESTED[®]
DEVICE**

SAMICK PRECISION IND
LMES25UU

Report No. SA 1105-551

DUPLICATE

Statement of
Qualification

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Customer: SAMICK PRECISION IND. CO., LTD.
925-2, Wulam-Dong, Dalseo-Gu
704-833 Daegu
South Korea

Test results:
(according to ISO 14644-1)

The linear bushing LMES25UU is suitable for use in cleanrooms fulfilling the Air Cleanliness Class 3.

Component tested:

Category: Automation Components
Subcategory: Transfer Systems and Bearings
Type: Linear bushing LMES25UU

Random check measurements of particle emission (airborne) at representative points

Test procedure: According to VDI 2083 Part 9.1

Measuring instruments being used: Optical Particle Counter:
Model LasAir II 110 manufactured by PMS with measuring channels of
 $\geq 0.1 \mu\text{m}$, $\geq 0.2 \mu\text{m}$, $\geq 0.3 \mu\text{m}$, $\geq 0.5 \mu\text{m}$, $\geq 1.0 \mu\text{m}$ and $\geq 5.0 \mu\text{m}$

Test parameters of the test environment:

- Cleanroom of Air Cleanliness Class:ISO Class 1
.....(according to ISO 14644-1)
- Air flow velocity:0.45 m/s
- Air flow guidance:vertical unidirectional air flow from ceiling to floor
- Temperature:22 °C \pm 0.5 °C (71.6 °F \pm 0.9 °F)
- Relative humidity: 45 % \pm 5 %

Test parameters of the test execution:

- Travelling distance:s=500 mm
- Velocity: $v_3 = 1.0 \text{ m/s}$
- Acceleration: $a_3 = 2.0 \text{ m/s}^2$

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The measuring equipment used for the qualification is regularly calibrated and is based on national and international standards. In the case where no national standards exist, the measuring procedure used corresponds with technical regulations and norms valid at the time of the measurement. The documents drawn up for this procedure are available for viewing.

The validity of this certificate applies only to the mentioned product in this particular condition for a duration of 5 years.
Further information: www.tested-device.com.


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Place, Date


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