IPA

valid until: May 27, 2031

Cleanroom (atmospheric)

Fraunhofer

TESTED®
DEVICE

igus SE & Co. KG
E6.52.100.075.0.ESD.LW
Report No. IG 2504-1622

Statement of
Qualification

Single product
Electrical
Resistance

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Statement of Qualification · Single product

Customer

igus SE & Co. KG
Spicher Strasse 1a
51147 Cologne
Germany

Tested product

Category: Energy Supply

Subcategory: Cable Guiding Systems

Product name: E6.52.100.075.0.ESD.LW E6 of series ESD
(manufacturing date: 2/2026; color: black and gray; article number: E6.52.100.075.0.ESD.LW; serial number: E6.52 ESD.LW)

Electrical resistance measurements at representative points (point-to-point resistance (R_{p-p}))

Standards/guidelines: IEC 61340-2-3, -5-1,-5-2
The norms stated generally refer to the version valid at the time of the tests.

Test equipment:
- Data acquisition: ..... Metriso 3000
  ..... Wolfgang Warmbier GmbH & Co. KG
- Measuring probes (2 probes):
  – Model: ..... Model 850, ME 2.5 kg, ø 63.5 mm, IEC 61340-2-3, -4-1
  ..... Wolfgang Warmbier GmbH & Co. KG

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
- Temperature: ..... 22 °C ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:
- Insulating base:
  – Type: ..... Plane PTFE-Plate with R > 10^{14} Ω
  – Dimensions: ..... 1.210 mm x 1.200 mm (± 5 mm)
  – Thickness: ..... 5 mm (± 1 mm)

Test result / Classification

The cable guiding system E6.52.100.075.0.ESD.LW E6 of series ESD was examined for its electrical resistance at representative points based on IEC 61340-2-3. The maximum mean value lies below the designated limit value of 1 x 10^{11} Ω for ESD protective elements without contact potential with ESDS.

Resistance type	Max. ø-value [Ω]	Thresold [Ω]	Compliance with limit value
Point-to-point resistance (R_{p-p}) potential contact with ESDS	not applicable	1.0 x 10^{9}	--
Point-to-point resistance (R_{p-p}) no potential contact with ESDS	9.4 x 10^{11}	1.0 x 10^{11}*	**not fulfilled**

*To avoid electrostatical phenomenons it is recommended to measure the electrostatic field at the place where the ESDS are handled. If it exceeds 5000 V/m, it is recommended to use charge reducing techniques.

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.

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