

Fraunhofer

TESTED® DEVICE

LEONI Elocab Ltd. EBK 37504 Rev.2 **Report No. LE 0912-501**

Statement of Qualification





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Customer:

LEONI Elocab Ltd. 258 McBrine Drive Kitchener, ON, N2R 1H8

Canada

Component tested:

LEONI Elocab Ltd. High Performance Flat Cable

Type:

Tests performed:

Test parameters:

Test results / classification:

EBK 37504 Rev.2

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

- Stroke length: 830 mm
- Set of parameters 1: v_1 : 0.5 m/s; a_1 : 1.0 m/s²
- Set of parameters 2: v₂: 1.0 m/s; a₂: 2.0 m/s²
- Set of parameters 3: v_3 : 2.0 m/s; a_3 : 4.0 m/s²

When the cable system is being operated at the above mentioned test parameters, it is suitable for use in cleanrooms fulfilling the Air Cleanliness Class 1 according to ISO 14644-1.

Test parameters	Air Cleanliness Class (in accordance to ISO 14644-1)
v ₁ : 0.5 m/s; a ₁ : 1.0 m/s ²	1
v ₂ : 1.0 m/s; a ₂ : 2.0 m/s ²	1
v ₃ : 2.0 m/s; a ₃ : 4.0 m/s ²	1

Standards/guidelines used for the qualification:

VDI 2083 Part 9.1; ISO 14644-1

Test parameters of the cleanroom 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 (raised floor)

Temperature: $22 \,^{\circ}\text{C} \pm 0.5 \,^{\circ}\text{C} (71.6 \,^{\circ}\text{F} \pm 0.9 \,^{\circ}\text{F})$

Relative humidity: 45 % ± 5 %

Stuttgart, July 29, 2010

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.

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