



Fraunhofer

**TESTED[®]
DEVICE**

FANUC Europe GmbH
LR Mate 200iD/7L

Report No. FA 1906-1033

DUPLICATE

Statement of
Qualification

Single product
Electrostatic
Charge Behavior

Customer

FANUC Europe GmbH
Bernhäuser Strasse 36
73765 Neuhausen auf den Fildern
Germany

Component tested

Category:

Automation Components

Subcategory:

Robotics

Product name:

LR Mate 200iD/7L in gelber Lackierung/7 kg Langarm (A05B-1142-B301)
(manufacturing date: 9/4/2018; color: yellow; serial number: E-119756;
weight: 25 kg; max. payload: 7 kg; reach horizontal: 71.7 cm; mechanical unit
number: R18900373; controller number: E18832878)

Measurement of charge behavior

Standards/Guidelines:

SEMI E78-0912
The norms stated generally refer to the version valid at the time of the tests.

Test devices:

- Data capture:Influence E-Fieldmeter EMF58
- Company: Eltex-Elektrostatik-GmbH

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: 4 x insulators in hexagonal design with total resistance > 10¹⁴Ω
 - Material: polyester, filled with glass
- Motion sequence:.....typical pick & place sequence
- Capacity:80 % of maximum capacity
- Operating state: on

Test result / Classification

The robot LR Mate 200iD/7L in gelber Lackierung/7 kg Langarm (A05B-1142-B301) fulfills the permissible limit values for the sensitivity threshold 2010/45 nm according to SEMI E78-0912.

Electrostatic field			
Electrostatic level		Test result	
Year Node	Limit value [V/cm]	Mean value [V/cm]	Max. single value measured [V/cm]
2010 45 nm	50	29	100
Limit value:		fulfilled	

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.