

Tightness tests for IP66
- MC1 Splitting d34mm

Requested by Trelleborg Industrial Products Finland Oy
Kimmo Ilén
Kikkerläntie 72
FI-38300 Sastamala
FINLAND
kimmo.ilen@trelleborg.com

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Contact person Eurofins Electric & Electronics Finland Oy
Jari Heikkinen
Kivimiehentie 4
FI-02150 Espoo
FINLAND
JariHeikkinen@eurofins.fi

Assignment Tightness tests for IP66.

Sample details MC1 Splitting d34mm.

Methods IEC 60529:1989+AMD1:1999+AMD2:2013.

Summary of performed tests and results

Test	Test dates	Conclusion
IP6X	13.2.2023	Pass
IPX6	14.4.2023	Pass

Espoo, 18.4.2023

Raoul Kempe
Senior Expert

Jari Heikkinen
Expert

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1 General

The test place was Eurofins Electric & Electronics Finland Oy and the tests were carried out 13. – 14.4.2023. The EUT was of the MC1 Splitting d34mm mounted on an accessory box:

2 Dust test for IP6X

2.1 Test procedure

For the dust test the EUT was placed in the dust chamber provided with talcum powder circulation. The underpressure pipe was connected on the side of the accessory box. The test parameters were following:

- Underpressure 2 kPa
- Flow rate of the air 0,2 l/min
- Test duration 8 hours
- Ambient conditions: $(+21 \pm 2) ^\circ\text{C}$ / $(38 \pm 5) \% \text{RH}$
- Test date 13.4.2023

The test equipment:

- Dust test chamber Weiss ST1000 U, IDN TL18658, calibrated 28.4.2020, valid 36 months
- Testo 175H1 Temperature / Humidity meter, IDN TL19676, calibrated 1.11.2022, valid 12 months



Photograph 1. EUT in the test chamber.

2.2 Test results

In the visual examination after the test no deposit of dust was detected inside the accessory box.

Based on the test results the protection against dust complies with the requirements stated for the protection class IP6X.

3 Water test for IPX6

3.1 Test procedure

The test was carried out by spraying the EUT with a water jet hose nozzle (\varnothing 12,5 mm, described in figure 6 in IEC 60529). The test parameters were following:

- Test duration 3 minutes
- The flow rate of the water 100 l/min
- Water temperature +21 °C
- Distance from the nozzle to the specimen 3 m
- Ambient conditions: (+20 \pm 2) °C / (56 \pm 5) % RH
- Test dates 14.4.2023

The test equipment:

- Würth 3m tape measure, ID M785228, calibrated 30.5.2022, valid 24 months
- HiTrax timer, IDN TL03958, calibrated 14.9.2021, valid 36 months
- Flow meter Bopp&Reuher TypM4/6300, IDN TL04122, calibrated 16.10.2020, valid 36 months
- Testo 175H1 Temperature / Humidity meter, IDN TL19675, calibrated 1.11.2022, valid 12 months

3.2 Test results

In the visual examination after the test a few water drops were noticed inside the MC1 Splitting. The amount and location were not harmful.

Based on the test results the protection against powerful water jets complies with the requirements stated for protection class IPX6.

