



Slovenski inštitut za
kakovost in meroslovje
Slovenian Institute of
Quality and Metrology

Poročilo o preskusu / Test Report

Št. / No.:

T211-0003R/12

Datum / Date:

2012-01-10

Proizvod / Product Connection Box for Electrical heating element for railway switches 12x18 mm Model: L-88 mm x Ø 27 mm	Listov / Pages 4
Naročnik / Applicant ELMERA Elektromehanički obrt za izradu svih vrsta grijača Ivanec, Gorica 34, HR-10290 Zaprešić, Croatia	Vrsta preskusa / Test procedure IP65
Proizvajalec / Manufacturer ELMERA Elektromehanički obrt za izradu svih vrsta grijača Ivanec, Gorica 34, HR-10290 Zaprešić, Croatia	Št. Merjencev / No. of Items tested 1
Blagovna znamka / Trade Mark /	Mapa predmeta št. / Subject File No. C20120035
Standardi – predpisi / Standards - regulations IEC 60529:2001	Kraj preskusa / Place of test SIQ, Tržaška 2 Ljubljana, Slovenia
	Opomba / Remark /

Zaključek / Conclusion

Tested product complies with the requirements of stated standards.

The test results relate only to the items tested.

Date of receipt of test items: 2012-01-10

Date of performance of tests: 2012-01-10

The test report T211-0003R/12 was change, compared to the T211-0003/12, in the product name.

Testni laboratorij je akreditiran pri Slovenski akreditaciji, reg.št.:LP-009 /
Testing Laboratory is accredited by Slovenian Accreditation, Reg. No. LP-009

Odgovoren za preskušanje / Responsible for the test

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Vodja področja / Department Manager

Matej Žontar

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1 TEST EQUIPMENT

- Dust chamber - SIQ (2013-01-19),
- Test device for verification of protection against spraying water - SIQ (2012-04-19)

Note: The date of the recommended recalibration is given for each measuring instrument (in brackets).

2 EQUIPMENT UNDER TEST (EUT)

The Connection Box, model L-88 mm x Ø 27 mm, for Electrical heating element for railway switches was subjected to testing to IP65 degree of protection.



Figure 1

IP65 numeric description:

The first characteristic numeral X indicates the degree of protection against solid foreign objects (degree 6-dust protected. The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of test).

The second characteristic numeral Y indicates the degree of protection provided by enclosures with respect to harmful effects on the equipment due to the ingress of water (degree 5-protected against spraying water. Water sprayed against the enclosure from any direction shall have no harmful effects).

3 TEST CONDITIONS

3.1 Dust test-IP6Y (IEC 60529, tables 2 and 7, sub-cl. 13.4; 13.6)

Dust test was performed in year 2009. The results are in test report T211-0091/09. There was no dust inside the enclosure.

3.2 Tests for protection against ingress of water-IPX5 (IEC 60529, tables 3 and 8, sub-cl. 14.2.5)

- Test device: spraying nozzle (internal diameter 6.3mm – standard requirement),
- Delivery rate: 12.5 ± 0.6 l/min,
- The enclosure was placed on the turntable (one turnover per minute) and sprayed from all practical directions (Figures 2 and 3),
- Distance from nozzle to enclosure surface: 3 m,
- Duration of the exposure: 3 minutes



Figure 2



Figure 3

Conclusion: After the water test there was no water inside the enclosure (Figures 4 and 5).



Figure 4

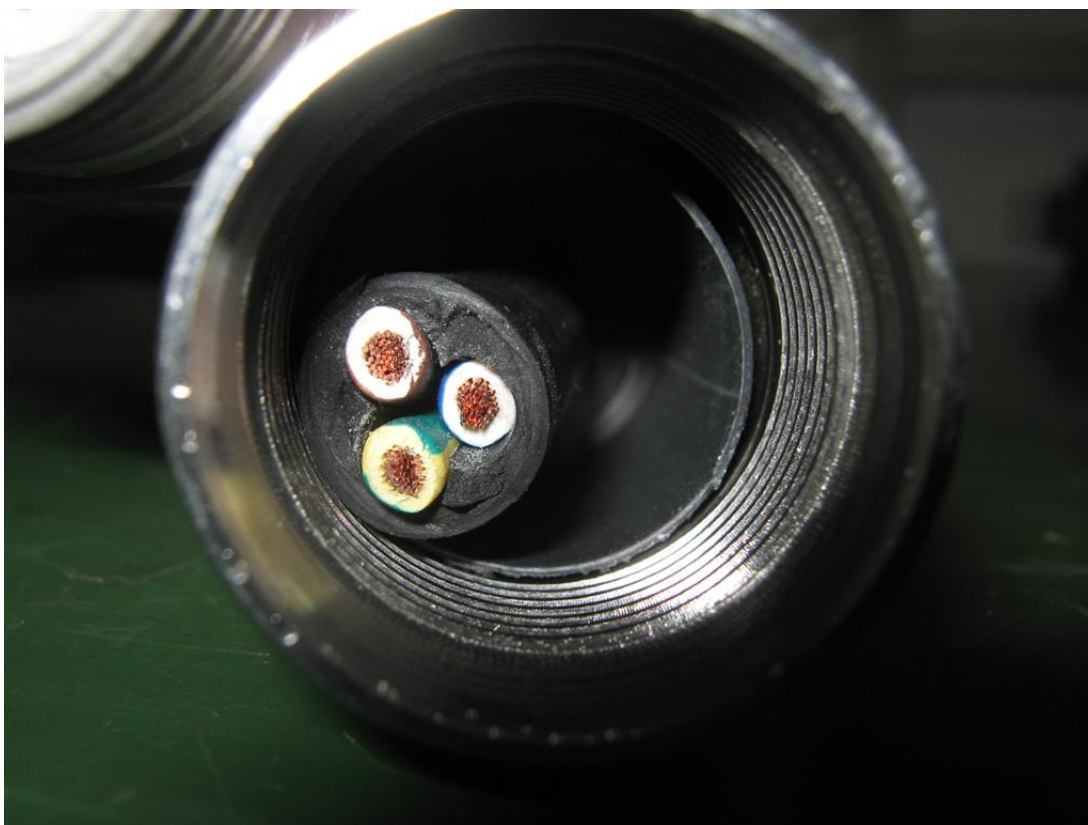


Figure 5

4 CONCLUSIONS

After the exposure was concluded, the visual examination of the sample was performed. We found no traces of water inside the enclosure.

Result: Following the acceptance conditions, the enclosure sustained the test conditions for IP65 degree of protection.