



Glow Wire Testing on Universal Mate-N-Lok Housings

1. INTRODUCTION

1.1 Purpose

Testing was performed on the TE Connectivity Universal Mate-N-Lok housings to evaluate its performance during glow wire testing.

1.2 Scope

This report covers the glow wire performance of Universal Mate-N-Lok connector housings. Testing was performed at the Harrisburg Electrical Components Test Laboratory between March 19, 2020 and March 20, 2020. Detailed test results are on file at the test lab under test number EA20200119T.

1.3 Conclusion

All specimens in Test Set 1 conformed to IEC 60695-2-11 Edition 2.0 2014-02 when tested at 850°C with a maximum allowable flame duration of 30 seconds following removal from the heated element.

1.4 Test Specimens

The specimens submitted for testing are identified in Table 1.

Table 1 – Specimen Identification

Test Set	Quantity	Identifier	Description
1	18	2029150-4	UMNL V2 GW Version

1.5 Test Sequence

The specimens in Table 1 were subjected to the testing outlined in Table 2.

Table 2 – Specimen Test Sequence

Test or Examination	Test Set
	1
	Test Sequence (a)
Glow Wire at 850°C	1

(a) Numbers indicate the order in which testing was performed

1.6 Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

Temperature: 15°C to 35°C
Relative Humidity: 20% to 80%

2. SUMMARY OF TESTING

2.1 Glow Wire 850°C

All specimens in Test Set 1 conformed to IEC 60695-2-11 Edition 2.0 2014-02 when tested at 850°C with a maximum allowable flame duration of 30 seconds following removal from the heated element. Flame height ranged from 13.0 to 15.0 centimeters and no burning of the specified layer was exhibited.

3. TEST METHODS

3.1 Glow Wire 850°C

The parts were conditioned for a minimum of 24 hours at 23°C and 55% RH. The specimens were subjected to the Glow Wire test per IEC 60695-2-11 Edition 2.0 Dated 2014-02 for a duration of 30 seconds at 850°C \pm 10°C with a glow wire penetration depth of 7 mm. The unmated test specimens were tested in three orientations and were orientated whereas not to impede the material from burning up the test specimen or dripping down to the specified layer (wrapping tissue paper). The tester observed each test specimen for flame height, flame duration, and burning of the specified layer beneath the specimen under test as specified in paragraph 5.3 in IEC60695-2-10 2nd Edition 2014-02.