

Universal MATE-N-LOK* Connectors

1. INTRODUCTION

1.1. Purpose

Testing was performed on Universal MATE-N-LOK* Connectors to determine its conformance related to the requirements of product specification 108-1031 Rev. N2 and 108-1031-1 Rev. C for O-ring (raw material changing) and one locknut (plating changing).

1.2. Scope

This specification covers performance, test and quality requirements for Universal MATE-N-LOK* Connectors. Testing was performed at TE Connectivity Shanghai Electrical Test Laboratory between 2020-10-15 and 2020-10-28. The associated test number is TP-20-01650.

1.3. Conclusion

Based on the test results, all samples meet the requirement according to customer requirement.

1.4 Test Specimens

Specimens with the following part numbers were used for test:

Test Group	Part No.	Description	Qty. (pcs)	Comments
1	1-1604256-1	UMNL BULKHEAD CONN,4 POS	3	/
	1-1604941-1	UMNL BULKHEAD CONN,12 POS	3	/
3	1-1604261-1	LOCKNUT, THREADED	5	/
	1604261-1	LOCKNUT, THREADED, BULKHEAD, UNIVERSAL MATE-N-LOK	5	/

1.5. Test Sequence

Test Item	Test Group	
	1	3
Test Sequence		
Examination of Product	1,5	1,3
Dust Test	4	
Salt Spray		2
Water Proof Test (IPX6)	3	
Water Proof Test (IPX7)	2	

Note: a). Test group defined per customer requirement.
 b). Numbers indicate sequence in which tests are performed.

1.6. Environmental Conditions

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

Temperature: 15°C to 35°C
 Relative Humidity: 25% to 75%

2. TEST PROCEDUES

2.1. Examination of Product

All specimens were visually examined for evidence of physical damage detrimental to product performance
 Test Method: EIA-364-18B.

2.2. Dust Test

Subject mated samples to 8 hours of circulating talcum powder dust. 2 kg of powder per cubic meter of test chamber shall be used.

Requirement: No ingress of dust.

Test Method: 108-1031-1 Rev. C, IEC 60529-2013, 13.4.

2.3. Salt Spray

Subject mated specimens to 48 hours at 5% concentration.

Requirement: No visual change.

Test Method: 108-1031 Rev.N2, EIA 364-26C.

2.4. Water Proof Test (IPX6)

Subject mated samples to 3minutes of water spray at a flow rate of $100 \pm 5\%$ liter per minute.

Requirement: No ingress of water.

Test Method: 108-1031-1 Rev. C, IEC 60529-2013 14.2.6.

2.5. Water Proof Test (IPX7)

Immerse mated samples in water for 30 minutes with the lowest point of the sample 1 meter below the surface. 8 inch minimum tank diameter.

Requirement: No ingress of water.

Test Method: 108-1031-1 Rev. C, IEC 60529-2013 14.2.7.

3. SUMMARY OF TEST**3.1. Examination of Product**

All group specimens were visually examined and no evidence of physical damage detrimental to product performance was observed.

3.2. Dust Test

No ingress of dust nor physical damage.

3.3. Salt Spray

No corrosion was found after test.

3.4. Water Proof Test (IPX6)

No ingress of water nor physical damage.

3.5. Water Proof Test (IPX7)

No ingress of water nor physical damage.

4. VALIDATION

Requested by:

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2020-07-29

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2020-11-02

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