Splash Proof Seal, Universal MATE-N-LOK* Connectors

1. INTRODUCTION

1.1. Purpose

Testing was performed on the AMP* Splash Proof Seal to determine its conformance to the requirements of AMP Product Specification 108-1031-1 Rev. O.

1.2. Scope

This report covers the mechanical and environmental performance of the Splash Proof Seal manufactured by the Consumer/Commercial Business Unit. The testing was performed between January 20, 1997 and May 19, 1997.

1.3. Conclusion

The Splash Proof Seal, listed in paragraph 1.5., meets the mechanical and environmental performance requirements of AMP Product Specification 108-1031-1 Rev O.

1.4. Product Description

The Universal MATE-N-LOK* splash proof seal is a three piece (two wire end seals and one interface seal) kit designed to provide various levels of protection from dust and water ingress.

1.5. Test Samples

The test samples were randomly selected from normal current production lots, and the following part numbers were used for test:

Test Group	Quantity	Part Nbr	Description
1,2	24 ea.	794276-1	6 Pos wire seal
1,2	12 ea.	794275-1	6 Pos interface seal
1,2	6 ea.	350715-1	6 Pos Plug housing
1,2	6 ea.	350781-1	6 Pos Cap housing
1,2	6 ea.	1-480704-1	6 Pos Plug housing
1,2	6 ea.	1-480705-1	6 Pos Cap housing
1	72	350218-1	Pin contact on AWG 16 wire
1	72	350536-1	Socket contact on AWG 16 wire
2	72	350218-1	Pin contact on AWG 20 wire
2	72	350536-1	Socket contact on AWG 20 wire

1.6. Qualification Test Sequence

Test or Examination	Test Groups	
	1	2
Examination of Product	1,4	1,4
Water immersion	2	
Water spray		2
Dust tightness	3	3

NOTE *The numbers indicate sequence in which tests were performed.*

2. SUMMARY OF TESTING

2.1. Examination of Product - All Groups

All samples submitted for testing were randomly selected from current production lots. A Certificate of Conformance was issued by the Product Assurance Department of the Consumer/Commercial Business Unit. Where specified, samples were visually examined and no evidence of physical damage detrimental to product performance was observed.

2.2. Water Immersion - Group 1

No evidence of physical damage or ingress of water was visible as a result of a water immersion test.

2.3. Water Spray - Group 2

No evidence of physical damage or ingress of water was visible as a result of a water spray test.

2.4. Dust Tightness - Groups 1 and 2

No evidence of physical damage or ingress of dust was visible as a result of a dust tightness test.

3. TEST METHODS

3.1. Examination of Product

Where specified, samples were visually examined for evidence of physical damage detrimental to product performance.

3.2. Water Immersion

Mated samples were immersed in water for 30 minutes with the lowest point of the sample 1 meter below the surface. After removal from the water, samples were wiped with a paper towel then opened and examined for the presence of water.

3.3. Water Spray

Mated samples were subjected to a 100 ± 5% liter per minute water spray for three minutes. The spray nozzle was held 3 meters above the samples and the samples were continually turned so that the spray hit all surfaces of the sample. After testing, samples were wiped with a paper towel then opened and examined for the presence of water.

3.4. Dust Tightness

Mated samples were placed in a circulating dust (talcum powder) chamber. A circulating pump maintained the talcum powder in suspension. The amount of talcum powder used was 2 kg per cubic meter of test chamber volume. The test time was 8 hours. After testing, excess talcum powder was brushed off the samples, then opened and examined for the presents of talcum powder.

4. VALIDATION

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