NICOMATIC

NICOMATIC Test report summary

CMM Family

HUMIDITY Test

CREATIVE
INTERCONNECT
SOLUTIONS

I. Introduction

A. Purpose

The CMM connectors' family are manufactured to meet or exceed the requirements of **MIL-DTL-55302G standard**.

B. Scope

The object of this test is to assess the ability of electrical components to withstand severities of humidity test.

The following data has been taken from NICOMATIC Qualification test reports **QTR0943** and **QTR0945**.

C. Conclusion

The CMM connectors' family are **qualified** regarding **HUMIDITY** according to **MIL-DTL-55302G**.

Humidity test according to MIL-DTL-55302 _ 7 days.

	Initial	After Humidity
LF Contacts		
Visual Inspection	No evidence of cracking or breaking after the test	
Insulation Resistance	> 1 Gohm	
Contact Resistance	10 mOhm Max	15 mOhm Max
Low Level Contact Resistance		
HP Contacts		
Visual Inspection	No evidence of cracking or breaking after the test	
Insulation Resistance	> 1 Gohm	
Contact Resistance	3 mOhm Max	6 mOhm Max
Low Level Contact Resistance		

II. Test Method and Requirements

A. List of Test Samples

a. CMM 200 Series

- 201Y50L – LF male contacts Straight PCB _ 13507
- 202Y50 – LF female contacts Straight PCB _ C14764

b. CMM 220 Series

- 221V50FXX – LF male contacts 90° PCB _ 13507
- 222S50MXX – LF female crimp contacts _ C12468
- 222YL26MXX – LF male contacts Straight PCB _ C14810
- 221S26FXX – LF male crimp contacts _ 12969
- 221D00FXX-0008-3400CMM – HP30 male contacts 90° PCB _ 30-3400-CMM
- 222E00MXX-0008-4320 – HP30 female straight contacts on cable _ 30-4320
- 222Y08SXX-0004-4300CMM – HP30 + LF female contacts Straight PCB _ 30-4300-CMM + C14764
- 221S08FXX-0004-3308 – HP30 + LF male contacts Straight on cable _ 30-3308 + 12969
- 221S06FXX-0003-3320 – HP30 + LF male contacts Straight on cable _ 30-3320 + 12969
- 222S06MXX-0003-4308 – HP30 + LF female contacts Straight on cable _ 30-4308 + C12468

c. CMM 320 Series

- 321C057FXX – LF male crimp contacts _ 12960
- 322C057MXX – LF female crimp contact _ C13064-P
- 321V096FXX – LF male contacts 90° PCB _ 13507
- 322Y096MXX – LF female contacts Straight PCB _ C14812
- 341D000FXX-0018-340014 – HP22 male contacts 90° PCB _ 22-3400-XX
- 342E000MXX-0018-4310 – HP22 female straight contacts on cable _ 22-4310
- 342D000MXX-0048-430014 – HP22 female contacts Straight PCB _ 22-4300-14
- 341E000FXX-0048-3310 – HP22 male straight contacts on cable _ 22-3310

B. Requirements

According to **MIL-DTL-55302G** standard and **EIA-364-31B** test procedure:

When tested in accordance with test method, insulation resistance shall be greater than 1,000 megohms.

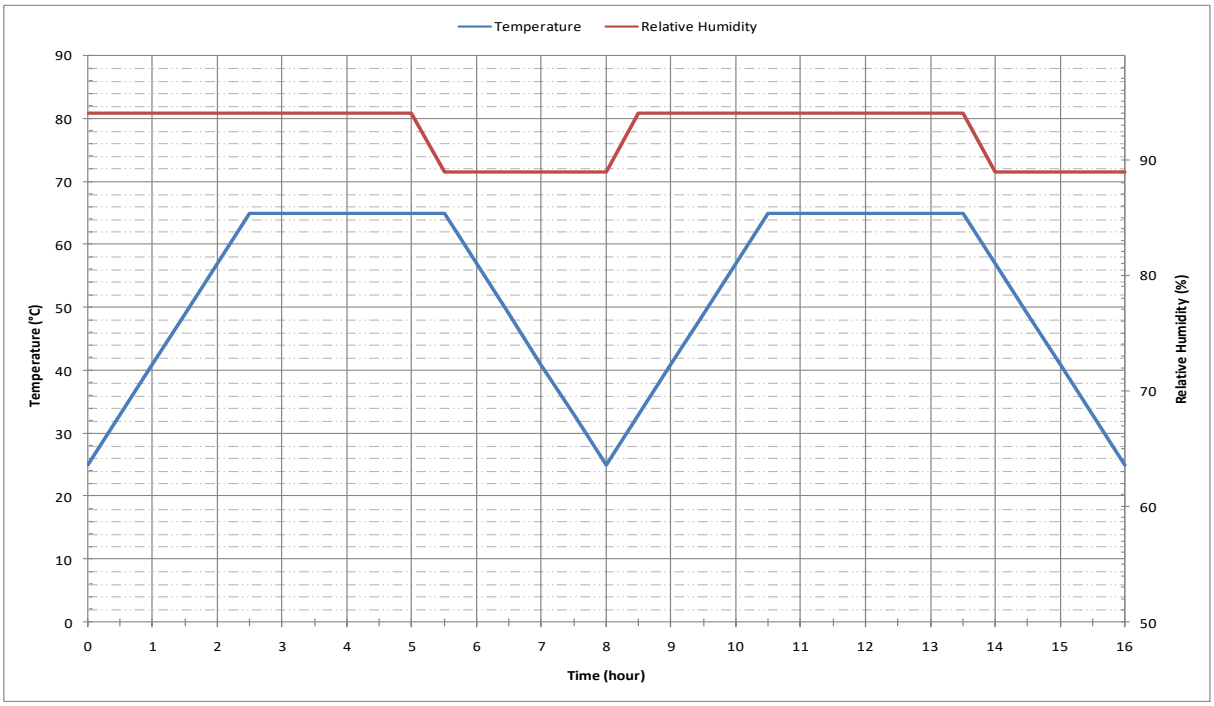
C. Test Method and Results

The Connectors are assembled by pair.

A polarizing potential is applied on the couple of connectors.

- The minimum temperature is 25°C and the maximum temperature is 65°C.
- The minimum relative humidity is 89 ± 9% and the maximum relative humidity is 94 ± 4%.

The climatic cycle is defined below:



- Before and after humidity test, connectors are tested in accordance with MIL-DTL-55302F & EIA/ECA-364-21C test procedure.
- Insulation resistance are measured separately between the closest adjacent contacts and between pins and hardware. The test voltages applied are 500Vdc.

REFERENCES	RESULTS
201Y50L with 202Y50	**Passed**
221V50FXX with 222S50MXX	**Passed**
221S26FXX with 222YL26MXX	**Passed**
321C057FXX with 322C057MXX	**Passed**
321V096FXX with 322Y096MXX	**Passed**
221D00FXX-0008-3400CMM with 222E00MXX-0008-4320	**Passed**
221S08FXX-0004-3308 with 222Y08MXX-0004-4300CMM	**Passed**
221S06FXX-0003-3320 with 222S06MXX-0003-4308	**Passed**
341D000FXX-0018-340014 with 342E000MXX-0018-4310	**Passed**
341E000FXX-0048-3310 with 342D000MXX-0048-430014	**Passed**

	Initial	After Humidity
LF Contacts		
Visual Inspection	No evidence of cracking or breaking after the test	
Insulation Resistance	> 1 Gohm	> 1 Gohm
Contact Resistance	5.88 mOhm Max	11.7 mOhm Max
Low Level Contact Resistance	8.8 mOhm Max	10.5 mOhm Max
HP Contacts		
Visual Inspection	No evidence of cracking or breaking after the test	
Insulation Resistance	> 1 Gohm	> 1 Gohm
Contact Resistance	1.42 mOhm Max	1.62 mOhm Max
Low Level Contact Resistance	5.15 mOhm Max	4 mOhm Max