NICOMATIC

NICOMATIC Test report summary

CMM Family

OVERSIZED PIN EXCLUSION 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

Check if the male and female contacts can refused to be mated with oversized pins or rings without being damaged.

The following data has been taken from NICOMATIC Qualification test report **QTR0802**.

C. Conclusion

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

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

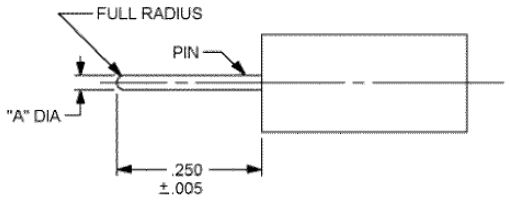
B. Requirements

According to **MIL-DTL-55302G** standard:

The mating end of the socket contacts shall exclude the entry of a test pin 0.005 inch larger than the allowable maximum pin diameter in the connector when tested in accordance with test method.

C. Test Method and Results

The applicable steel pin, shown on figure 2, for the size contacts to be tested, shall be applied to the sockets of the connector for a period of 10-seconds without the pin entering the socket or causing damage to the socket. A minimum of seven contacts shall be measured on each specimen.



PIN: TOOL STEEL, HARDEN & DRAW TO ROCKWELL C50-55

HANDLE: SHAPE OPTIONAL, SIZE TO BE DETERMINED BY SPECIFIED TOTAL WEIGHT

Inches	mm
.0000	0.000
.0001	0.003
.005	0.13
.0290	0.737
.0305	0.775
.0330	0.838
.0360	0.914
.0465	1.181
.250	6.35

"A" DIA +.0001 -.0000	Applied force (ounces)	Contact size
.0465	80.0 +.5 -.0	20
.0360	45.0 +.5 -.0	22
.0330	32.0 +.5 -.0	23
.0305	21.0 +.5 -.0	24
.0290	12.0 +.5 -.0	.6mm

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for information only.

Pins 0,617mm					
Samples	**C13064-P**	**C14764**	**C14812**	**C12468**	**C14810**
Nominal Diam.(mm)	1,30	1,30	1,30	1,30	1,30
1	ok	ok	ok	ok	ok
2	ok	ok	ok	ok	ok
3	ok	ok	ok	ok	ok
4	ok	ok	ok	ok	ok
5	ok	ok	ok	ok	ok
6	ok	ok	ok	ok	ok
7	ok	ok	ok	ok	ok

Ring gauge 2,473mm			
Samples	**30-3308**	**30-3320**	**30-3400-CMM**
Nominal Diam.(mm)	2,70	2,70	2,70
1	ok	ok	ok
2	ok	ok	ok
3	ok	ok	ok
4	ok	ok	ok
5	ok	ok	ok
6	ok	ok	ok
7	ok	ok	ok

Pins 1,997 mm		
Contacts	**22-4310**	**22-4300-14**
Nominal Diam.(mm)	2,20	2,20
1	ok	ok
2	ok	ok
3	ok	ok
4	ok	ok
5	ok	ok
6	ok	ok
7	ok	ok