The American Society of
Mechanical Engineers

AN AMERICAN NATIONAL STANDARD

TYPES AND APPLICATIONS OF ENGINEERING DRAWINGS

ASME Y14.24-1999
[Revision of ASME Y14.24M-1989 (R1996)]

CONTENTS

Foreword iii
Committee Roster v

1 General 1
1.1 Scope 1
1.2 Applicable Documents 1
1.3 Definitions 1
1.4 Methods and Styles of Preparation 1
1.5 Illustrations 2
1.6 Application Guidelines 2
1.7 Drawing Content 2
1.8 Tabulation 2
1.9 Combination of Drawing Types 2
1.10 Ancillary Drawings 2

2 Layout Drawing 2
2.1 Description 2
2.2 Application Guidelines 2
2.3 Requirements 3

3 Detail Drawing 3
3.1 Monodetail Drawing 3
3.2 Multidetail Drawing 3

4 Assembly Drawings 3
4.1 Assembly Drawing 3
4.2 Inseparable Assembly Drawing 4

5 Installation Drawing 4
5.1 Description 4
5.2 Application Guidelines 6
5.3 Requirements 6

6 Modifying Drawings 6
6.1 Altered Item Drawing 6
6.2 Selected Item Drawing 17
6.3 Modification Drawing 17

7 Arrangement Drawing 21
7.1 Description 21
7.2 Application Guidelines 21
7.3 Requirements 21

8 Control Drawings 21
8.1 Procurement Control Drawing 21
8.2 Vendor Item Control Drawing 24
8.3 Source Control Drawing 26
8.4 Envelope Drawing 26

9 Interface Drawing 30
9.1 Description 30
9.2 Application Guidelines 30
9.3 Requirements 30

10 Identification Cross Reference Drawing 30
10.1 Description 30
10.2 Application Guidelines 30
10.3 Requirements 30

11 Mechanical Schematic Diagram 30
11.1 Description 30
11.2 Application Guidelines 35
11.3 Requirements 35

12 Electrical/Electronic Diagrams 35
12.1 Functional Block Diagram 35
12.2 Single Line Diagram 35
12.3 Schematic Diagram or Circuit Diagram 35
12.4 Connection Diagram or Wiring Diagram 39
12.5 Interconnection Diagram 39
12.6 Wiring List 39
12.7 Logic Circuit Diagram 39

13 Special Application Drawings 39
13.1 Wiring Harness Drawing 39
13.2 Cable Assembly Drawing 46
13.3 Printed Board and Discrete Wiring Board Drawing Sets 46
13.4 Microcircuit Drawing Set 49
13.5 Undimensioned Drawing 49
13.6 Kit Drawing 49
13.7 Tube Bend Drawing 49
13.8 Matched Set Drawing 52
13.9 Contour Definition Drawing 52
13.10 Software and Memory Device Data 59
13.11 Design Parameters Drawing 61

Figures

1 Indentured Relationship of Installation Drawings (Depicting Work Packages) 5
2 Indentured Relationships of Printed and Discrete Wiring Board Documentation (Typical) 6
3 Layout Drawing 7
4 Monodetail Drawing 8
5 Tabulated Monodetail Drawing 9
6 Multidetail Drawing 10

7 Assembly Drawing 11
8 Detail Assembly Drawing 12
9 Inseparable Assembly Drawing 13
10 Installation Drawing 14
11 Altered Item Drawing (Mechanical Alteration) 15
12 Altered Item Drawing (Electrical Alteration) 16
13 Selected Item Drawing (Mechanical Selection) 18
14 Selected Item Drawing (Electrical Selection) 19
15 Modification Drawing 20
16 Arrangement Drawing (Pictorial) 22
17 Procurement Control Drawing 23
18 Vendor Item Control Drawing 25
19 Source Control Drawing 27
20 Envelope Drawing 29
21 Interface Drawing 31
22 Identification Cross Reference Drawing 33
23 Mechanical Schematic Diagram 34
24 Functional Block Diagram 36
25 Single Line Schematic Diagram 37
26 Schematic Diagram 38
27 Connection Diagram 40
28 Interconnection Diagram (Point-to-Point, Simple) 41
29 Interconnection Diagram (Point-to-Point, Complex) 42
30 Interconnection Diagram (Cabling Type) 43
31 Logic Circuit Diagram 44
32 Wiring Harness Drawing 45
33 Cable Assembly Drawing 47
34 Undimensioned Drawing 50
35 Kit Drawing 51
36 Tube Bend Drawing (Pictorial) 53
37 Tube Bend Drawing (Tabular) 54
38 Matched Set Drawing 55
39 Contour Definition Drawing (Index) 56
40 Contour Definition Drawing (Pictorial) 57
41 Contour Definition Drawing (Tabulated Coordinates) 58
42 Software Installation Drawing 60
43 Development Options 62
44 Design Parameters Drawing 63

Mandatory Appendix

I Definition of Terms 65

Nonmandatory Appendix

A Selection of Drawing Types 69

Figure

A-1 Decision Diagram for Determining Applicable Drawing Types for Procured Items 71

Table

A-1 Functional Grouping of Drawing Types 70