Panel Cut-Out Dimensions

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FOREWORD

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1. Scope and Purpose

1.1 This standard applies to panel cut-out dimensions for panel mounted rectangular instrument cases and auxiliary equipment requiring a panel cut-out 6" x 6" or smaller.

1.2 The purpose of this standard is to establish standard panel cut-out dimensions which will assist in minimizing the specialized engineering involved in the purchase and installation of this equipment.

2. Definitions

2.1 The following definitions give the meaning of the terms as used in this standard.

2.2 Panel Mounted Instruments and Panel Mounted Auxiliary Equipment. Panel mounted instruments and panel mounted auxiliary equipment are devices with the type of mountings which involve cut-outs in panels, the bulk of the devices extending through such cut-outs on the rear of the panels. This type of mounting is, at times, referred to as "flush mounting".

2.3 Panel Cut-Out. A panel cut-out is the opening required in a support panel to permit panel mounting.

3. Panel Cut-Out Dimensions

3.1 Panel cut-out dimensions for rectangular case recording instruments shall be 6" x 6" or 5" x 5".

3.2 Panel cut-out dimensions for recorders requiring cut-outs smaller than 5" x 5" and cut-out dimensions for other panel mounted equipment should be selected from the ASA standard Z17.1, "Preferred Number Series 20", modified as shown below. Any combination of these numbers may be used in either horizontal or vertical direction. The modified number series is:

1, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 3/4, 2, 2 1/4, 2 1/2, 2 3/4, 3, 3 1/2, 4, 4 1/2, 5, 6.

3.3 A one-eighth inch positive and zero negative tolerance shall be allowed on the basic dimensions selected in accordance with paragraphs 3.1 and 3.2. The tolerance limits on the cut-out dimensions are defined by the tolerance bands illustrated in figures 1 & 2 for the 5" x 5" and 6" x 6" basic dimensions. The intent of the tolerance specification is that a sharp corner plug gauge of the basic dimensions will pass through the opening.

3.4 The front surface of the panel and the cut-out shall be free of any burrs higher than 1/64".

3.5 In order to conform with the purpose of this standard, instruments designed to be mounted on panels in standard cut-outs shall be provided with mounting means such that no additional holes or notches or other modifications of the panel shall be required.