

EIA-498BAAA

EIA SPECIFICATION

Detail Specification for Capability
Approval of Metal Dome Contact
Touch Stroke Switch Panels

EIA-498BAAA

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ELECTRONIC INDUSTRIES ASSOCIATION
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**DETAIL SPECIFICATION
NUMBER**

EIA 498BAAA

GENERIC SPECIFICATION NUMBER EIA 4980000
**ELECTRONIC COMPONENTS OF ASSESSED
QUALITY IN ACCORDANCE WITH** EIA 498B000

**BLANK DETAIL
SPECIFICATION NUMBER**

EIA 498BA00

OUTLINE DRAWING

THIS IS A CAPABILITY APPROVAL DOCUMENT.

SEE FIGURES 1 AND 2 FOR RANGE OF SWITCH
PANELS COVERED BY THIS SPECIFICATION.

PRODUCT DESCRIPTION

TOUCH STROKE SWITCH
PANELS UTILIZING:

- 1) METAL DOME CONTACT.
- 2) PRINTED CIRCUIT
BOARD BASE.
- 3) SMOOTH OR EMBOSSED
OVERLAY.
- 4) MIN. 12.7mm (0.500")
CENTER-TO-CENTER DOME
SPACING.
- 5) CAPABILITY APPROVAL.

ELECTRICAL CIRCUIT

SPST PER STATION WITH
VARIOUS POSSIBLE INTER-
CONNECTION OF STATIONS.

TYPICAL CONSTRUCTION

SEE FIGURE 2

**APPLICATION/
ASSESSMENT LEVEL**

INDOOR CONTROLLED
ENVIRONMENT APPLICATIONS

**INFORMATION ON THE AVAILABILITY OF COMPONENTS
QUALIFIED TO THIS SPECIFICATION IS GIVEN IN
THE QUALIFIED PRODUCTS LIST**



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DETAIL SPECIFICATION FOR CAPABILITY
APPROVAL OF METAL DOME CONTACT
TOUCH STROKE SWITCH PANELS

(From EIA Standards Proposal No. 2056, formulated under the cognizance of the EIA P-13.3 Subcommittee on Non-Sensitive and Keyboard Switches.)

The complete requirements for the switches described herein shall consist of this Detail Specification, the latest issue of EIA-498B000, "Sectional Specification for Touch Stroke Switch Panels of Certified Quality," and the latest issue of EIA-4980000, "Generic Specification for Keyboard Switches of Certified Quality."

1.0 SECTION ONE - SCOPE AND OBJECT

1.1 Scope

The touch stroke keyboards of certified quality covered by this Specification:

- 1.1.1 Shall utilize a copper clad and etched printed circuit board of no more than 1161 square centimeters (180 square inches) in area, and employ the metal "dome" switch technology in the contact system.
- 1.1.2 Shall utilize a smooth or embossed overlay of polyester or polycarbonate as the front panel surface, the overlay being printed in the color(s), configuration and with the nomenclature required by the procurement documentation.
- 1.1.3 Shall have a minimum center-to-center spacing of the "dome" contacts of 12.7 mm (0.500 inch).
- 1.1.4 Shall have a maximum rated voltage of 24 Vdc, a maximum rated current of 10 mA, a minimum voltage breakdown of 250 Vac, a minimum life expectancy of 1,000,000 operations per contact, and shall have contact characteristics compatible with digital logic circuitry.
- 1.1.5 Are intended for use in indoor controlled environments.

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1.2 Object

The object of this Detail Specification is to provide all information required for identification, quality assessment and certification of these keyboards. The information contained herein or by reference is complete and sufficient for inspection purposes.

2.0 SECTION TWO - GENERAL

The related documents, units, symbols, terminology, standard values and preferred values are as prescribed in EIA-498B000.

2.2 Marking

2.2.1 Part Number

Each product shall be classified and identified (marked) as follows:

2.2.1.1 The number of this Specification (EIA498BAAA)

2.2.1.2 Dome size designator consisting of the first two digits of the nominal diameter (in thousandths of an inch) of the smallest dome contact used in the assembly. If more than one size of dome is used, these two digits shall be followed by a slash mark (/). Only dome contacts which have successfully passed qualification tests can be used in a certified keyboard.

2.2.1.3 Flat or embossed overlay designator consisting of either the letter F for flat, or the letter E for embossed.

2.2.1.4 Overlay material designator consisting of either the letter E for polyester, or the letter C for polycarbonate.

EXAMPLE: EIA498BAAA25/EE identifies a keyboard using more than one qualified dome contact size, the smallest of which has a nominal .25 inch diameter, and having an embossed overlay made of polyester material.