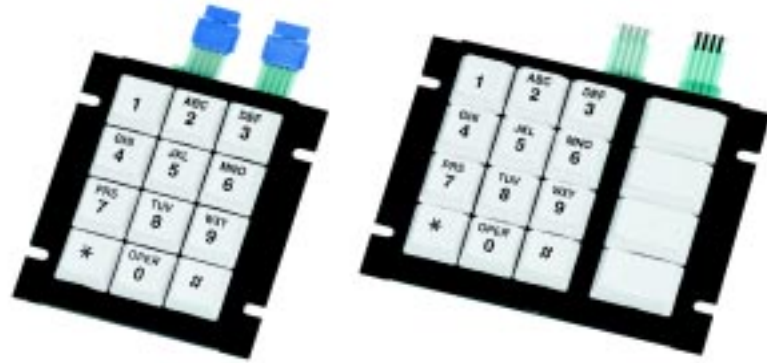


SERIES 81
Full Travel

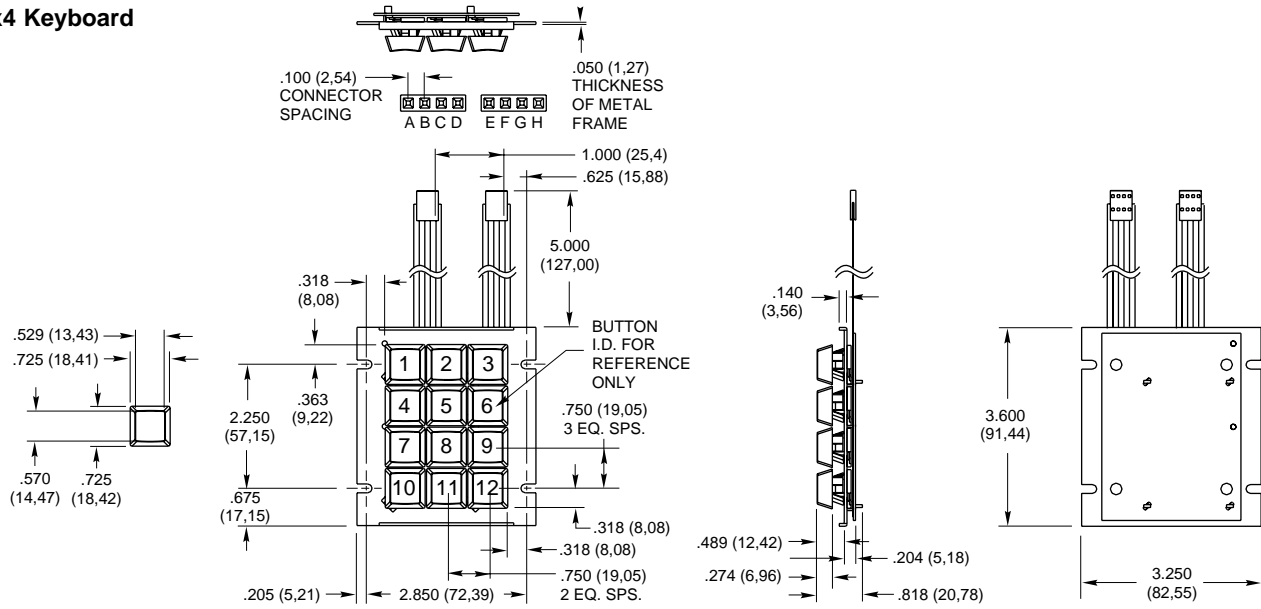
FEATURES

- 3,000,000 Operations per Button
- Silicone Rubber Actuators with Conductive Ink Contacts
- Membrane Matrix Circuitry
- Two Choices for Flex Tail Termination
- Legends are Molded into Plastic Keys for Long Life
- Mount Directly to PCB or Front Panel

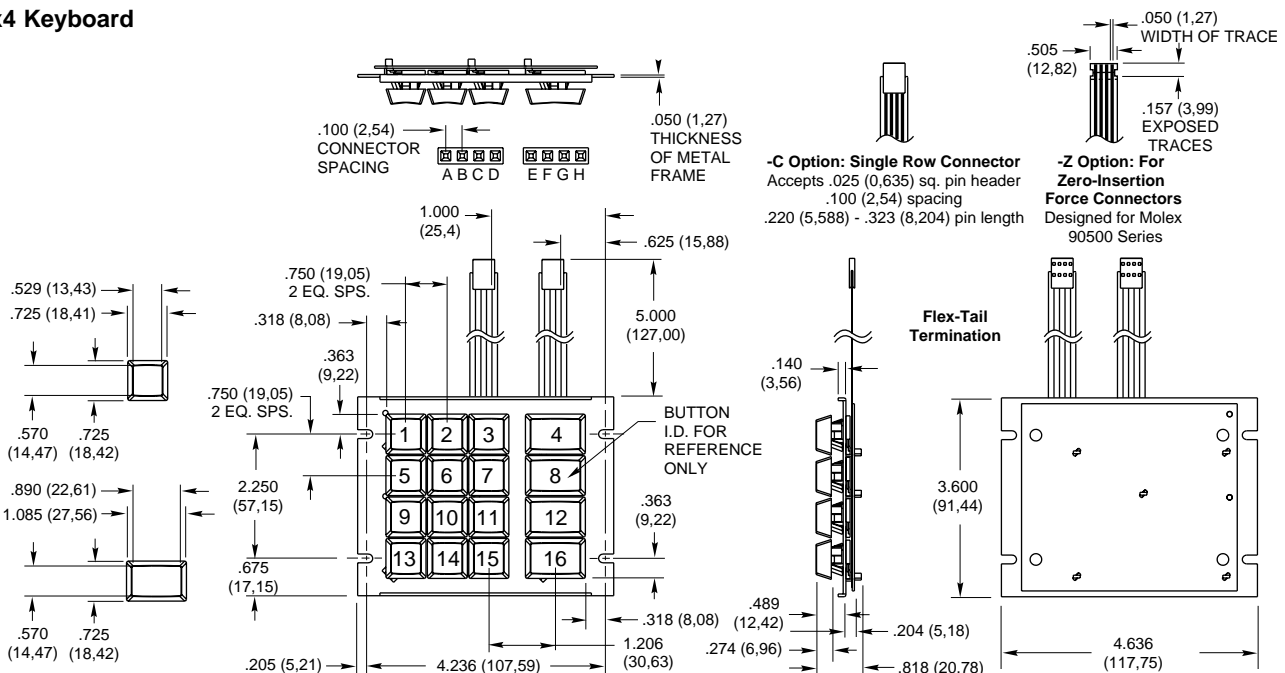


DIMENSIONS In inches (and millimeters)

3x4 Keyboard



4x4 Keyboard



Keyboards and Keypads

CODE AND TRUTH TABLES

Dots in the chart indicate connected terminals when switch is closed. Terminals are identified on the keyboard.

12 Button Keypads

| 3x4 | | CODES | | | | | | | |
|-----------------|----|-------------------|---|---|---|---|---|---|---|
| | | Matrix | | | | | | | |
| BUTTON LOCATION | 1 | . | | . | | | | | |
| | 2 | . | | . | | | | | |
| | 3 | . | . | . | | | | | |
| | 4 | . | | . | | | | | |
| | 5 | . | | . | | | | | |
| | 6 | . | . | . | | | | | |
| | 7 | . | | . | | | | | |
| | 8 | . | | . | | | | . | |
| | 9 | . | | . | | | | . | |
| | 10 | . | | . | | | | . | |
| | 11 | . | . | . | | | | . | . |
| | 12 | . | . | . | | | | . | . |
| | | A | B | C | D | E | F | G | H |
| | | TERMINAL LOCATION | | | | | | | |

16 Button Keypads

| 4x4 | | CODES | | | | | | | |
|-----------------|----|-------------------|---|---|---|---|---|---|---|
| | | Matrix | | | | | | | |
| BUTTON LOCATION | 1 | . | | . | | | | | |
| | 2 | . | | . | | | | | |
| | 3 | . | . | . | | | | | |
| | 4 | . | | . | | | | | |
| | 5 | . | | . | | | | | |
| | 6 | . | . | . | | | | | |
| | 7 | . | | . | | | | | |
| | 8 | . | | . | | | | . | |
| | 9 | . | | . | | | | . | |
| | 10 | . | . | . | | | | . | . |
| | 11 | . | . | . | | | | . | . |
| | 12 | . | . | . | | | | . | . |
| | 13 | . | . | . | | | | . | . |
| | 14 | . | . | . | | | | . | . |
| | 15 | . | . | . | | | | . | . |
| | 16 | . | . | . | | | | . | . |
| | | A | B | C | D | E | F | G | H |
| | | TERMINAL LOCATION | | | | | | | |

SPECIFICATIONS

Rating Criteria

- Rating at 24 Vdc:** 30 mA, resistive
- Contact Bounce:** Less than 4 milliseconds at make, 10 milliseconds at break
- Contact Resistance:** 100 ohms max.
- Life Expectancy:** 3 million operations per button
- Insulation Resistance:** ≥ 1,000 megaohm

Operating Features

- Button Travel:** .080 ± .020 inches (2.0 ± 0.50 mm) to make. Total travel: .120 ± .020 inches (3.1 ± 0.50 mm)
- Operating Force:** 2.6 ± .50 ounces (75 ± 14 grams)
- Operating Temperature:** -20°C to 80°C

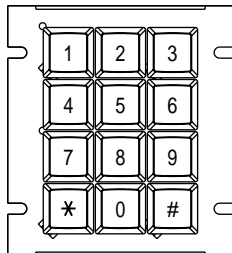
Materials and Finishes

- Membrane:** Polyester
- Buttons:** ABS plastic
- Actuators:** Silicone rubber
- Frame:** Commercial grade steel, black
- Backplate:** Aluminum, brushed finish
- Circuit Traces:** 100% Silver impregnated conductive ink

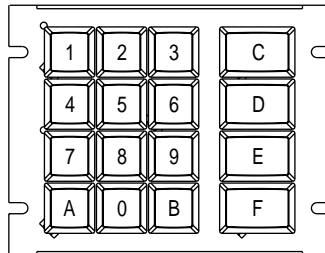
STANDARD LEGENDS

Available through Grayhill Distributors

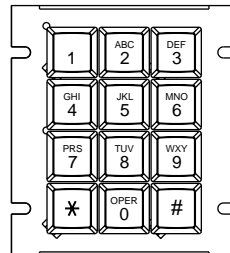
To order one of the configurations below, use the dash number shown here; select the keypad size and code, and order the part number with the appropriate legend dash number.



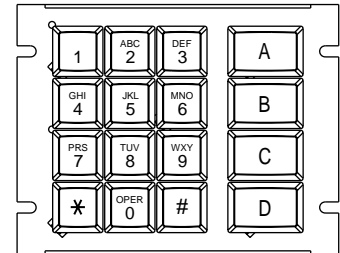
-112



-014



-113



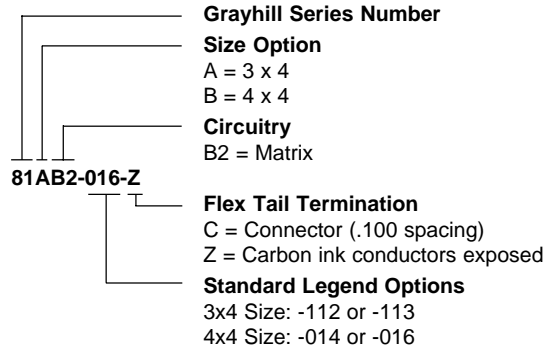
-016

CUSTOM LEGENDS

Any reasonable legend can be printed in the C-6 key area. A sketch of your requirements to Grayhill. Printing and symbols will be coordinated in keeping with concepts of good design. Or, if required, the details of your submitted artwork will be matched as closely as possible. Allow 3 to 4 weeks for custom legend delivery. A nominal charge, depending on the total quantity of keypads ordered and the complexity of the legend, will be assessed.



ORDERING INFORMATION



Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office In CHINA (Beijing): Phone: (010)6851-9097, Fax: (010)6851-5578