

SERIES 96 Conductive Rubber

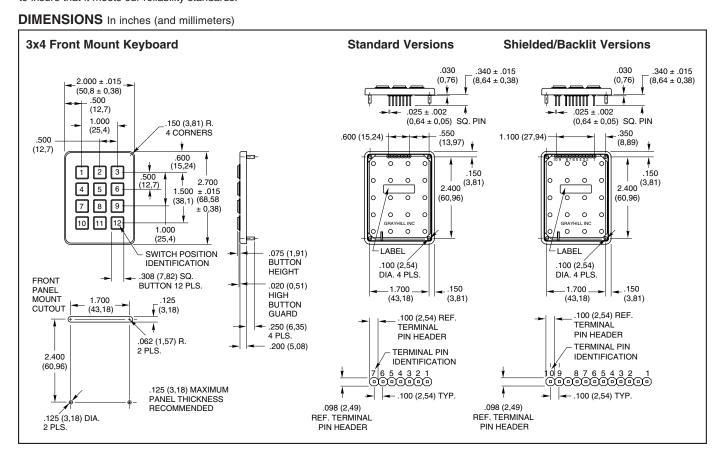


FEATURES

- Quality, Economical Keyboards
- Easily Customized Legends
- Matrix Circuitry
- Backlit and Shielded Options Available
- Termination Mates With Standard Connectors
- Tactile Feedback to Operator
- 1,000,000 Operations per Button
- Compatible With High Resistance Logic Inputs

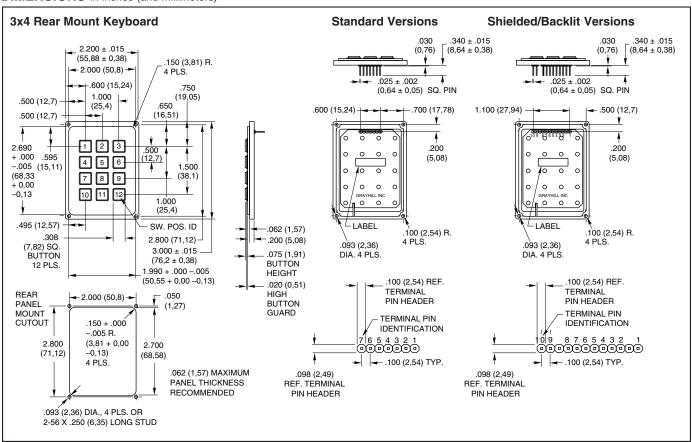
The Series 96 is Grayhill's most economical 3x4 and 4x4 keypad family. The contact system utilizes conductive rubber to mate the appropriate PC board traces. Offered in matrix circuitry, with shielded and backlit options. Built with quality component parts, the Series 96 is subjected to our rigid statistical process control to insure that it meets our reliability standards.

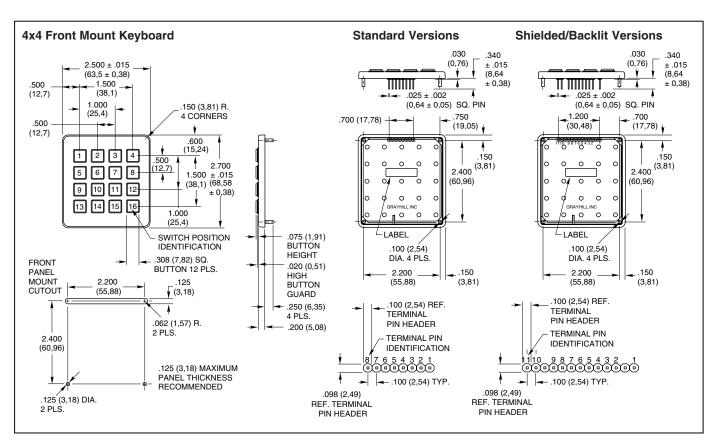






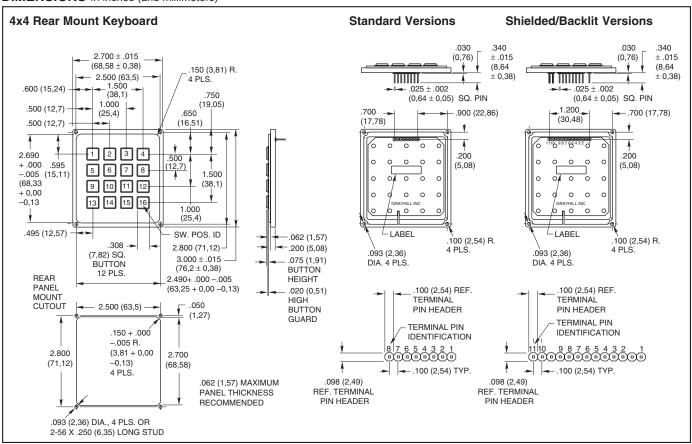
DIMENSIONS In inches (and millimeters)







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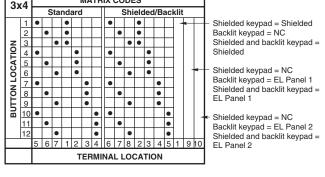


CODE AND TRUTH TABLES

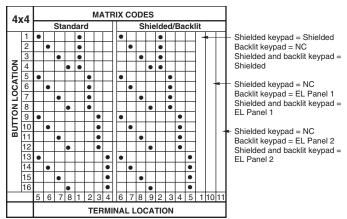
Dots in the chart indicate connected terminals when switch is closed. Terminals are identified on the keyboard.

12 Button Keypads

MATRIX CODES



16 Button Keypads





SPECIFICATIONS

Rating Criteria

Rating at 12 Vdc: 5 milliamps for .5 seconds Contact Bounce: < 12 milliseconds Contact Resistance: < 300 milliohms max. Voltage Breakdown: 250 Vac between

components

Mechanical Operation Life: 1,000,000

operations per key

Insulation Resistance: > 1012 ohms @ 500 Vdc

Push Out Force Per Pin: 5 lbs.

Operating Features

Travel: .040 minimum

Operating Force: 175 ± 40 grams Operating Temperature: -30°C to +80°C

Material and Finishes

Terminal Pin: Phosphor bronze **PC Board:** FR-4 glass cloth epoxy **Keypad:** Silicone rubber, durometer 50 ± 5

Housing: ABS, cycolac FR15

Housing Color: Black

Shielding Effectiveness

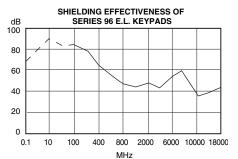
Results shown are typical for a standard Grayhill Series 84S keyboard. A conductive gasket will generally increase the shielding, depending on the size and shape of the gasket and its material. Data derived for E-Field Radiation.

Test Method:

Measurements were made with the keyboard mounted to a brass plate, which in turn was mounted to a shielded enclosure containing the receiving equipment. A signal generator provided the frequency source that was radiated from the transmitting antenna to the enclosed receiving antenna. The spacing between antennas was maintained constant throughout the frequency range. The effectiveness rating is determined by establishing a reference reading without obstruction between the two antennas and determining the difference between that reading and the test setup reading.

Note:

When measured in actual equipment, shielding effectiveness is determined by many factors. This method accurately represents the shielding effectiveness of the Grayhill Series 84S under Ideal test conditions.



 Represents shielding effectiveness greater than or equal to line.

| Frequency M Hz | Rating in dB |
|-------------------|--------------|
| 0.1 | ≥ 66.2 |
| 10 | ≥ 94.8 |
| 100 | 90.5 |
| 400 | 64.2 |
| 800 | 42.3 |
| 2,000 | 40.5 |
| 6,000 | 33.1 |
| 10,000 | 34.4 |
| 18,000 | 37.0 |

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.

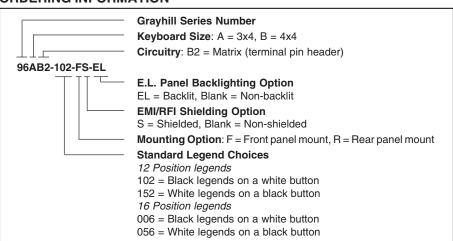








ORDERING INFORMATION



Available from your local Grayhill Distributor.

For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.