

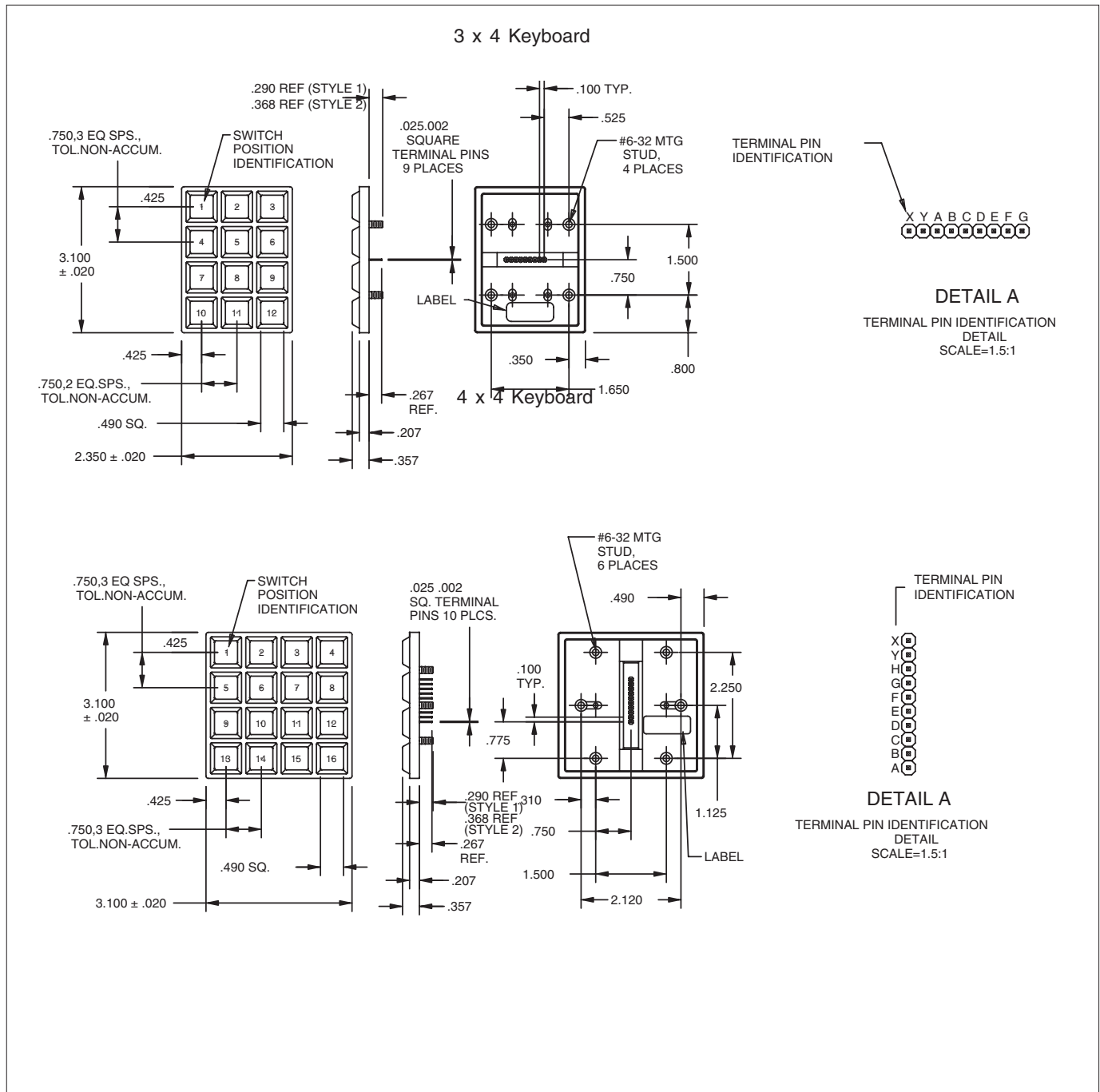
**SERIES 84BL**  
Standard Backlit

**FEATURES**

- Backlit for Low Light Applications
- Waterproof Silicone Rubber
- Audible, Tactile Contacts
- Low Contact Resistance
- Optional RFI/EMI Shielding
- 3,000,000 Operations per Button



**DIMENSIONS** In inches (and millimeters)



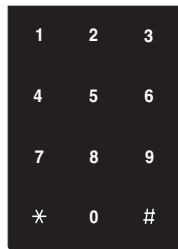
Keyboards and Keypads

**SCHEMATIC AND TRUTH TABLE**

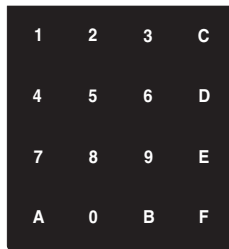
| LED Color | Forward Voltage |      |      | Resistor (OHMS) | Typ. Current Consumption (With 5V Pwr. Supply) |       |
|-----------|-----------------|------|------|-----------------|--|-------|
|           | Min.            | Typ. | Max. |                 | 3 x 4  | 4 x 4 |
| Red       | -               | 1.95 | 2.40 | 43              | 155mA  | 205mA |
| Yellow    | -               | 1.95 | 2.40 | 43              | 155mA  | 205mA |
| Green     | 1.50            | -    | 2.40 | 43              | 155mA  | 205mA |
| Orange    | -               | 1.95 | 2.40 | 43              | 155mA  | 205mA |

**STANDARD LEGENDS**

Available through Grayhill Distributors To order one of the configurations below, use the dash number shown here; select the keypad size and order the part number with the appropriate legend dash number. Contact Grayhill for Customs.



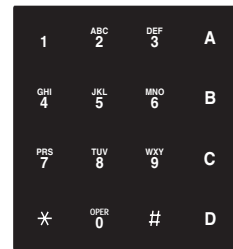
-112



-014



-113



-016

**SPECIFICATIONS**

**Rating Criteria**

**Rating at 24 Vdc:** - 10 milliamps resistive  
**Contact Bounce:** 4 milliseconds maximum at make; 10 milliseconds, at break  
**Contact Resistance:** 10 ohms maximum

**Life Expectancy:** 3 million operations/button  
**Insulation Resistance:** •1,000 megohms

**Operating Features**  
**Pre-Travel:** .030 inches minimum  
**Operating Force:** 20 ± 4 ounces  
**Humidity:** 0 to 98% (no condensation)

**Materials and Finishes**

**Terminal Pins:** Copper alloy CDA 725  
**PC Board:** FR-4 glass cloth epoxy  
**Dome Retainer/Rear Seal Sheet:** Polyester  
**Mounting Studs:** Phosphor bronze  
**Optional Hex Nut:** Stainless steel, passivated  
**Optional EMI Shield:** Aluminum foil  
**Keypad:** Silicone rubber

**ORDERING INFORMATION**

**84BL** = Printed Legend, Sealed and Shielded  
**84BLN** = Printed Legend, Sealed and Non-Shielded  
**Keyboard Size:** A = 3 x 4, B = 4 x 4  
**B** = Matrix Code  
**84BLN-AB-XXXAN**  
**N** = Mounting Nuts Supplied and Shipped Loose, Blank = No Nuts Supplied  
**Led Color:** A = Red, B = Yellow, C = Green, D = Orange  
**Standard Legends:** -112 or -113 for 3x4, -014 or -016 for 4x4