

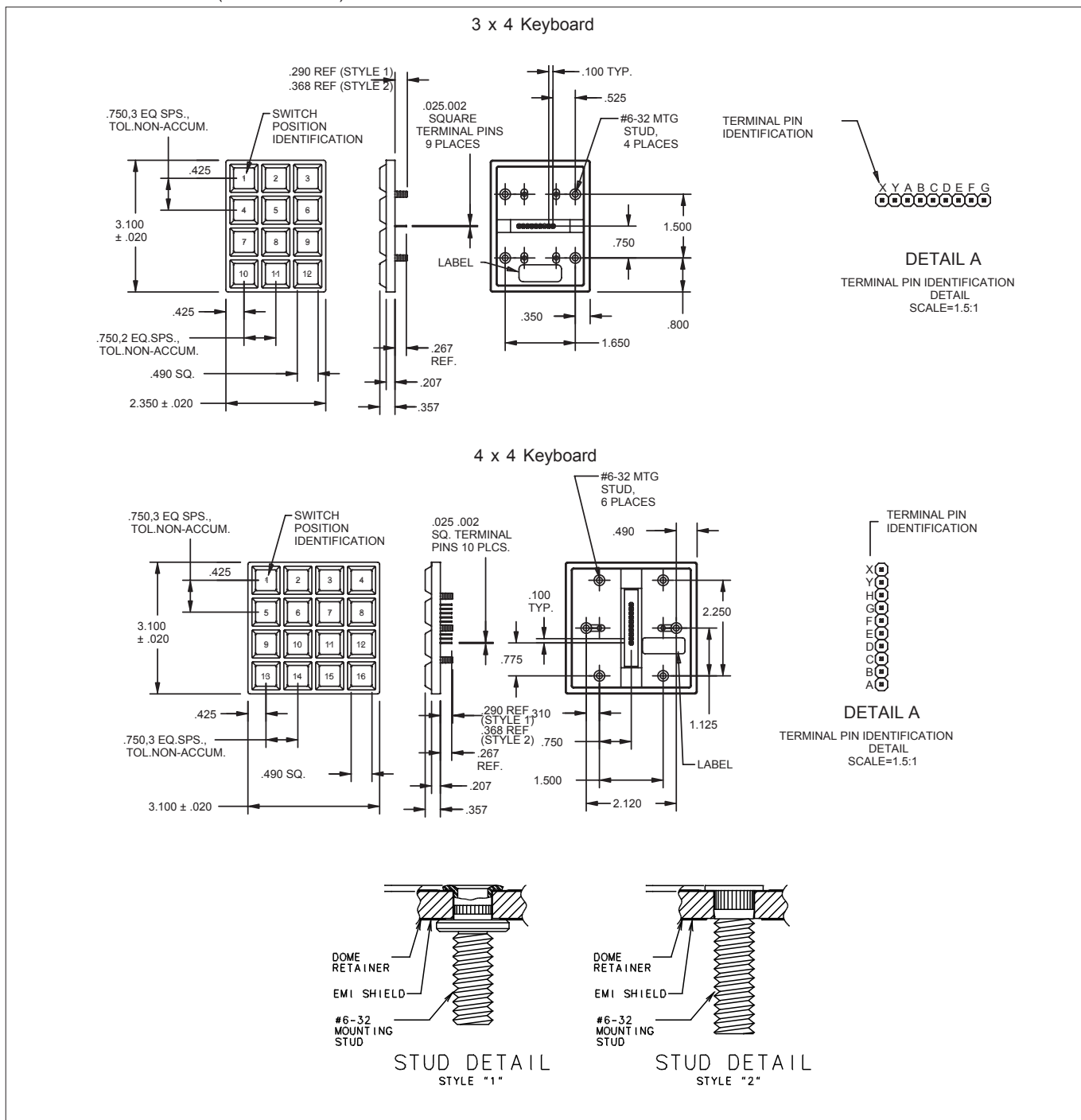
**SERIES 84BL**  
Standard Backlit

**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

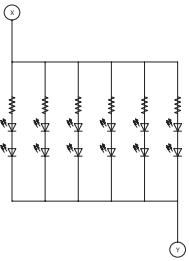


**DIMENSIONS** in inches (and millimeters)

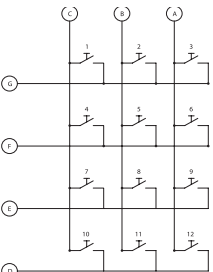


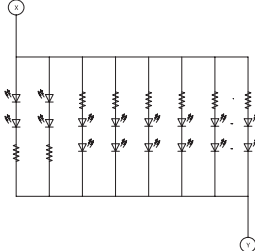
Keyboards and Keypads

## SCHEMATIC AND TRUTH TABLE

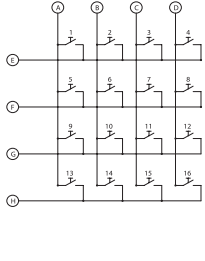


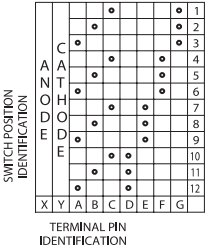
**3 x 4**





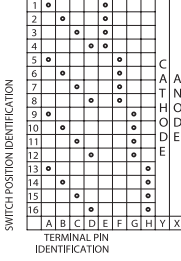
**4 x 4**





SWITCH POSITION IDENTIFICATION

TERMINAL PIN IDENTIFICATION



SWITCH POSITION IDENTIFICATION

TERMINAL PIN IDENTIFICATION

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  
 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  
 1 = Style "1" (see stud detail)  
 2 = Style "2" (see stud detail)

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

Keyboards and Keypads

Grayhill, Inc. • 561 Hillgrove Avenue • LaGrange, Illinois 60525-5997 • USA • Phone: 708-354-1040 • Fax: 708-354-2820 • www.grayhill.com

# Mouser Electronics

Authorized Distributor

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