



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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# Standard Keypads

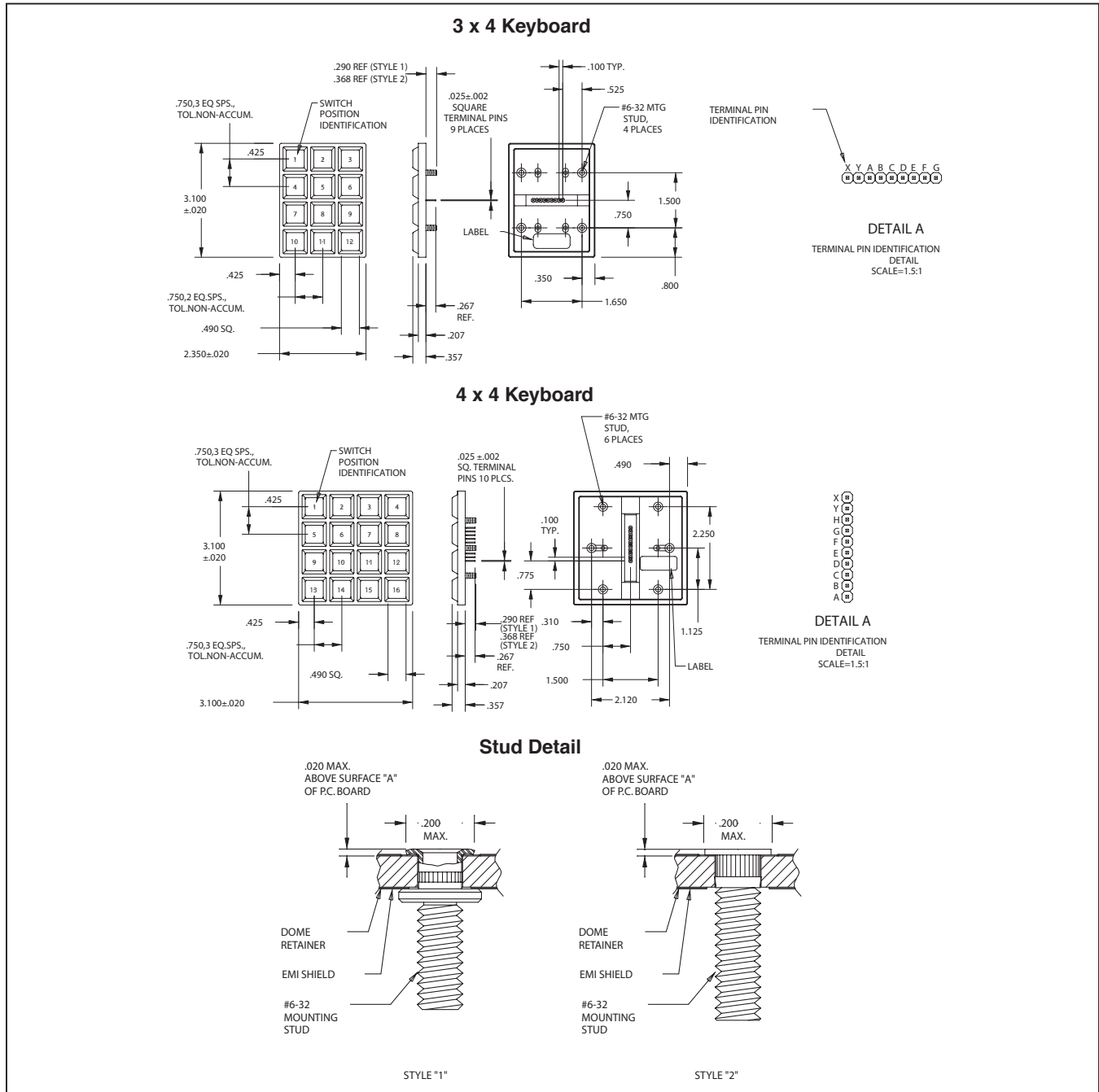
Series 84BL Standard Backlit



## 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)

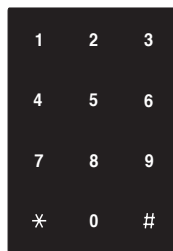


### SCHEMATIC AND TRUTH TABLE

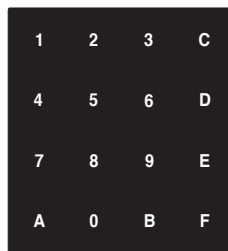
LED Color	Forward Voltage			Resistor (OHMS)	Typ. Current Consumption (With 5V Pwr. Supply)	
	Min.	Typ.	Max.		3 x 4	4 x 4
Red	-	1.95	2.40	43	155mA	205mA
Yellow	-	1.95	2.40	43	155mA	205mA
Green	1.50	-	2.40	43	155mA	205mA
Orange	-	1.95	2.40	43	155mA	205mA

### STANDARD LEGENDS

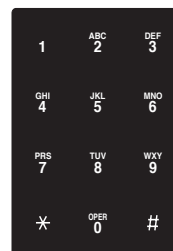
**Available through Grayhill Distributors** To order one of the configurations below, use the dash number shown here; select the keypad size and order the part number with the appropriate legend dash number. Contact Grayhill for Customs.



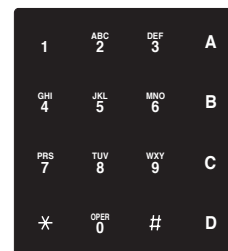
-112



-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, solder-plated  
**PC Board:** FR-4 glass cloth epoxy  
**Dome Retainer/Rear Seal Sheet:** Polyester  
**Mounting Studs:** Style 1: Stainless steel, Style 2: 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" Terminal Pin Header (see stud detail), **2** = Style "2" Terminal Pin Header (see stud detail)

**84BLN-AB1-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