



**THE DATASHEET OF  
84BL-AB1-112A**



# SERIES 84BL Standard Backlit

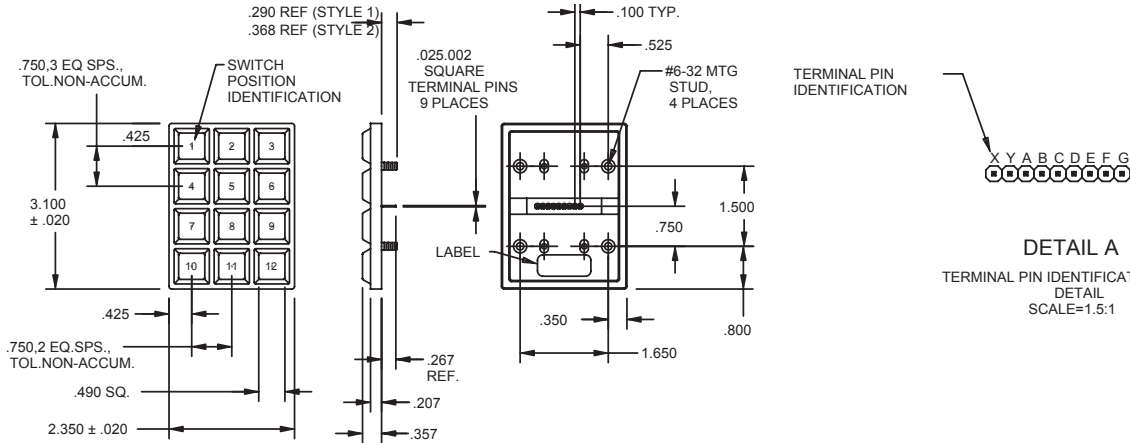
## FEATURES

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



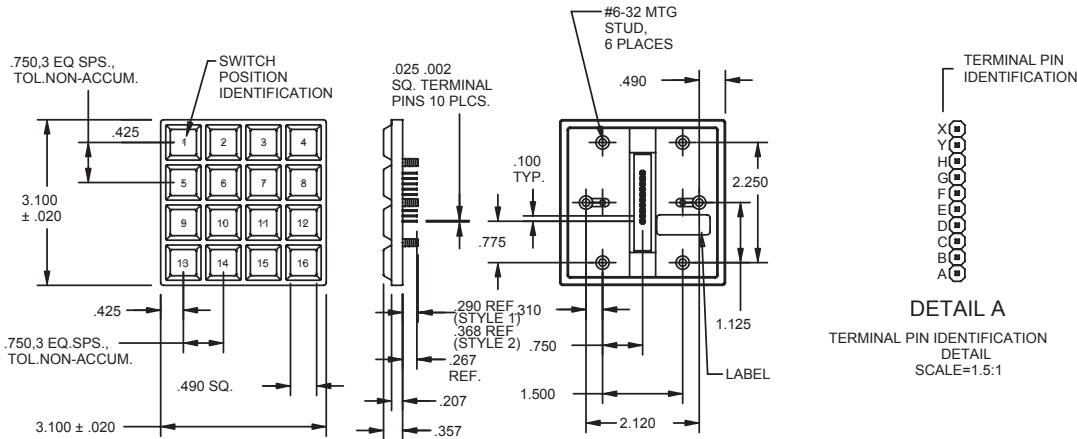
## DIMENSIONS in inches (and millimeters)

### 3 x 4 Keyboard

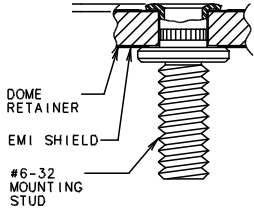


DETAIL A  
TERMINAL PIN IDENTIFICATION  
DETAIL  
SCALE=1.5:1

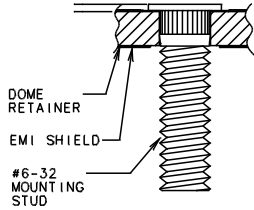
### 4 x 4 Keyboard



DETAIL A  
TERMINAL PIN IDENTIFICATION  
DETAIL  
SCALE=1.5:1



STUD DETAIL  
STYLE "1"



STUD DETAIL  
STYLE "2"

Keyboards and Keypads

## SCHEMATIC AND TRUTH TABLE

### 3 x 4

### 4 x 4

SWITCH POSITION IDENTIFICATION

TERMINAL PIN IDENTIFICATION

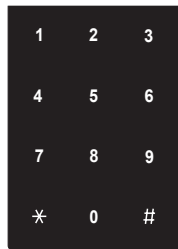
SWITCH POSITION IDENTIFICATION

TERMINAL PIN IDENTIFICATION

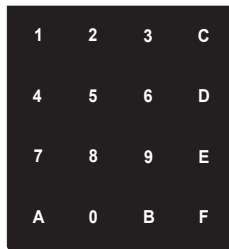
LED COLOR	FORWARD VOLTAGE			RESISTOR	TYPICAL CURRENT DRAW WITH 5V POWER SUPPLY	
	MIN	TYP.	MAX		3x4	4x4
RED	-	1.9V	2.5V	221Ω	168mA	224mA
YELLOW	-	2.0V	2.5V	221Ω	163mA	217mA
GREEN	-	3.3V	4.1V	121Ω	169mA	225mA
ORANGE	-	2.0V	2.5V	221Ω	163mA	217mA
BLUE	-	3.3V	4V	121Ω	169mA	225mA

## 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.



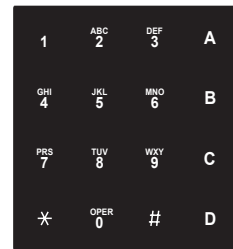
-112



-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

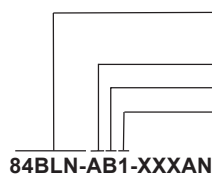
### Operating Features

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

### Materials and Finishes

Terminal Pins: Phosphor Bronze Tin Plated  
 PC Board: FR-4 glass cloth epoxy  
 Dome Retainer/Rear Seal Sheet: Polyester  
 Mounting Studs: Stainless Steel (Style 1), Phosphor Bronze Tin Plated (Style 2)  
 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, E = Blue  
 Standard Legends: -112 or -113 for 3x4, -014 or -016 for 4x4

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View 84BL-AB1-112A on WIN SOURCE](#)
-  [Grayhill Inc. Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management