

# 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