

**SERIES 37F**  
Keypads

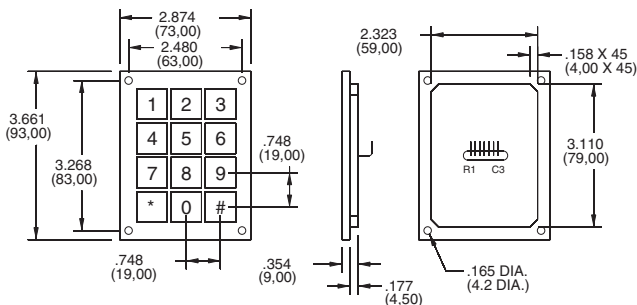
**FEATURES**

- Fully Sealed
- Virtually Indestructible
- Vandal Resistant
- Indoor and Outdoor Use

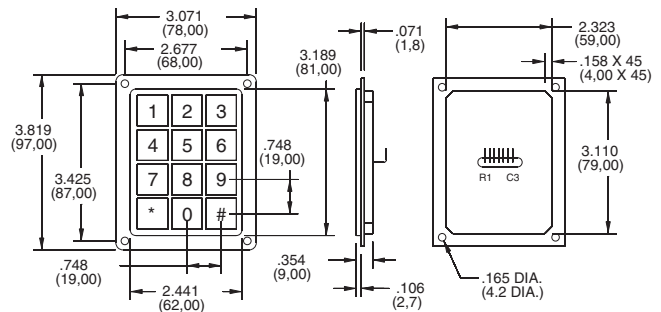


**DIMENSIONS** In inches (and millimeters)

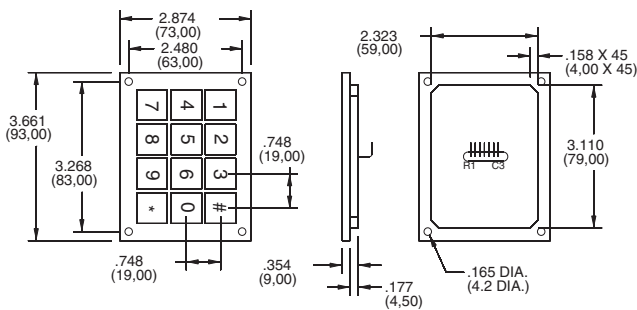
**3x4 Keypad**



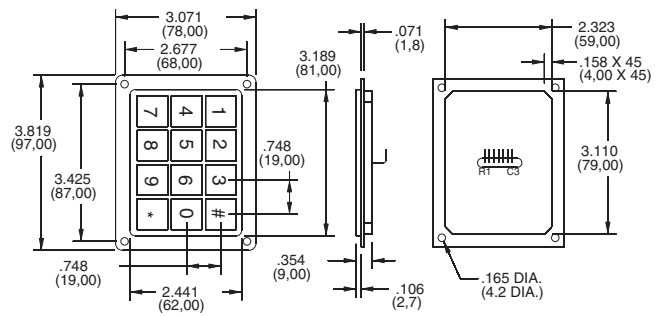
**FRONT MOUNT OPT- #1**



**REAR MOUNT OPT- #3**



**FRONT MOUNT OPT- #2**

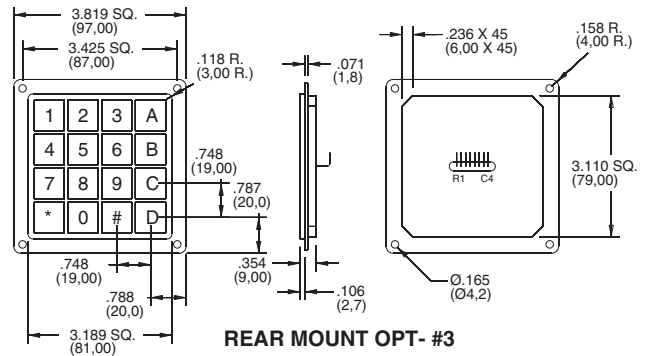
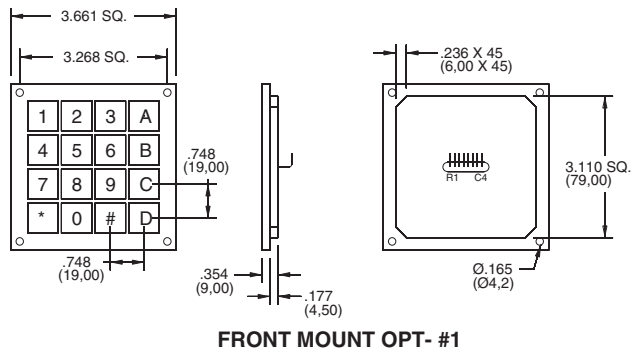


**REAR MOUNT OPT- #4**

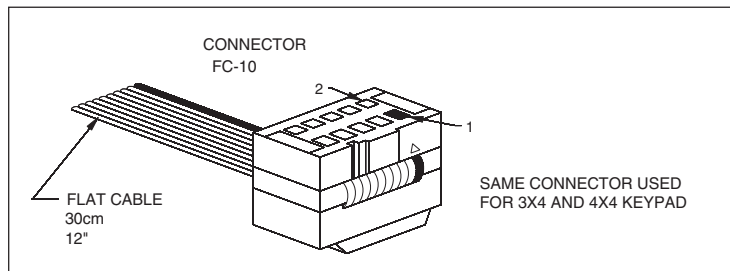
Keyboards and Keypads

## DIMENSIONS In inches (and millimeters)

### 4X4 Keypad



## CONNECTORS In inches (and millimeters)



## CODE AND TRUTH TABLES

3X4 Connector Pin Number		SWITCH POSITIONS					
	1	2	3	4	5	6	7
1				●			●
2				●			●
3				●	●		
4			●				●
5			●			●	
6			●		●		
7		●					●
8		●				●	
9		●			●		
10	●						●
11	●					●	
12	●				●		

4X4 Connector Pin Number		SWITCH POSITIONS						
	1	2	3	4	5	6	7	8
1	●				●			
2	●					●		
3	●						●	
4	●							●
5		●			●			
6		●				●		
7		●					●	
8		●						●
9			●		●			
10			●			●		
11			●				●	
12			●					●
13				●	●			
14				●		●		
15				●			●	
16				●				●

## SPECIFICATIONS

### Rating Criteria

**Rated Voltage:** 0 – 24V AC/DC

**Rated Current:** 0 – 2 Amps.

**Resistance “ON”:** <10 Ohms.

**Resistance “OFF”:** >5 megohms

**Switch Capacitance:** 25pF

**Switch Functioning:** One Shot

**Activation Force:** 3-5N Typ.

**Operating Temperature:** -40°C to 85°C  
(40° to 125°C upon requested)

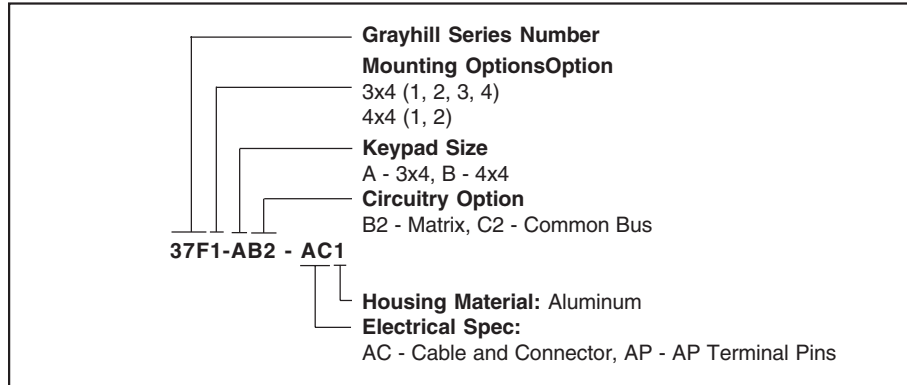
**Lifecycle:** >50 million

**EMI or RFI Effect:** None

**Housing Material:** Aluminium

**Protection System:** IP68  
according to IEC 529.

## ORDERING INFORMATION



**SERIES 37F**  
**PIEZO Pushbutton Switches**

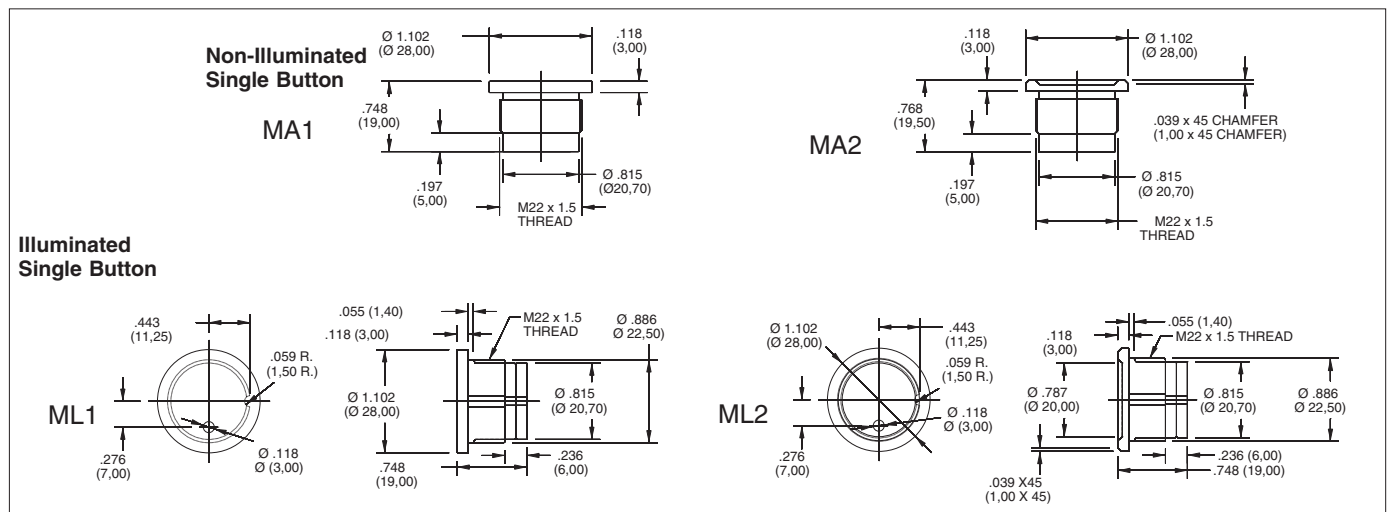


**FEATURES**

- Fully Sealed
- Virtually Indestructible
- Vandal Resistant
- Indoor and Outdoor Use

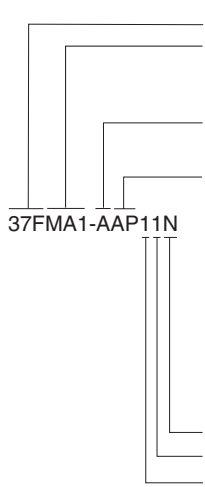


**DIMENSIONS** In inches (and millimeters)



Keyboards and Keypads

**ORDERING INFORMATION, 37FMA AND 37FML**



**Grayhill Series**

**Housing Type**

MA1, MA2  
ML1\*, ML2\*

**Circuitry**

A - N.O., B - N.C.

**Electrical Specifications**

AW - V Max: 24V, I Max: 0.2 A AC/DC, Term: Red wire

BW - V Max: 24V, I Max: 0.2 A AC/DC, 150 Transient,  
Term: Purple wire

CW - V Max: 24V, I Max: 1.0 A AC/DC, 150 Transient  
Term: Orange/White wire

EW - V Max: 24V, I Max: 0.2 A AC/DC, Term: Green wire,  
N.C. Circuitry Option Only

AP - V. Max: 24V, I Max 0.2 A AC/DC, Term: PIN

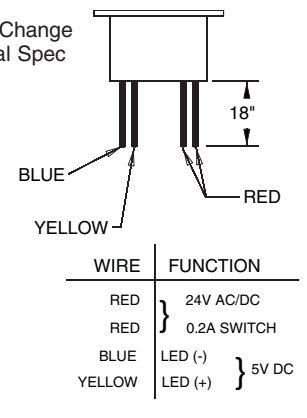
CP\*\* - V Max: 24V, I Max: 1.0 A AC/DC, Term: PIN

**Housing Color:** N - Natural

**Housing Material:** 1 - Aluminum

**LED:** 1- Red, 2 - Green, 3 - Yellow, 4 - Red/Green

Wire Colors Change with Electrical Spec Option



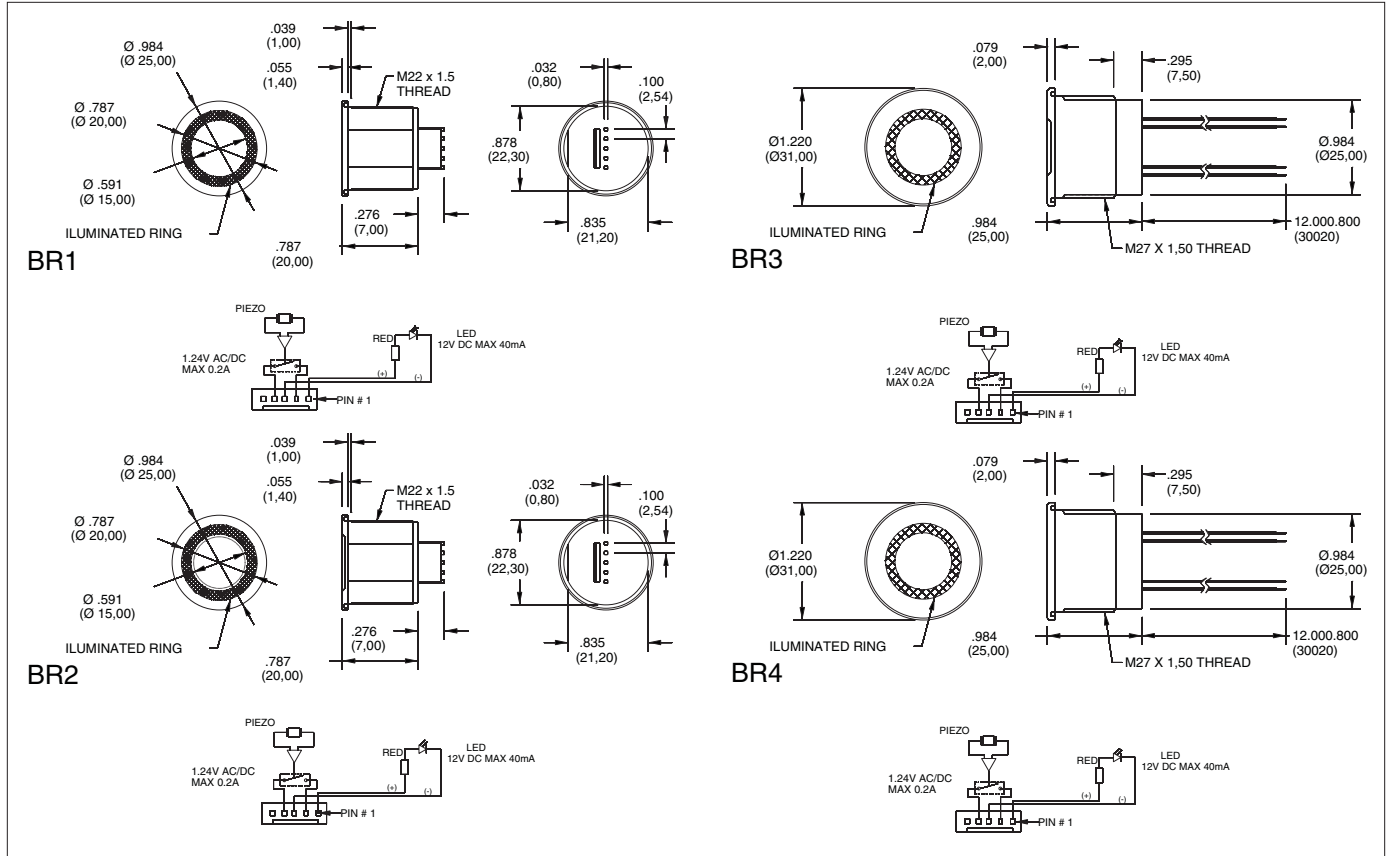
\*LED Option

\*\*This Option Not Available with LED Housing ML1 or ML2

\*\*\*Only Available with Housing Types ML1 and ML2.

Special colors, S.S. and legends available. Contact Grayhill for more information.

**DIMENSIONS** In inches (and millimeters)



**ORDERING INFORMATION, 37FBR**

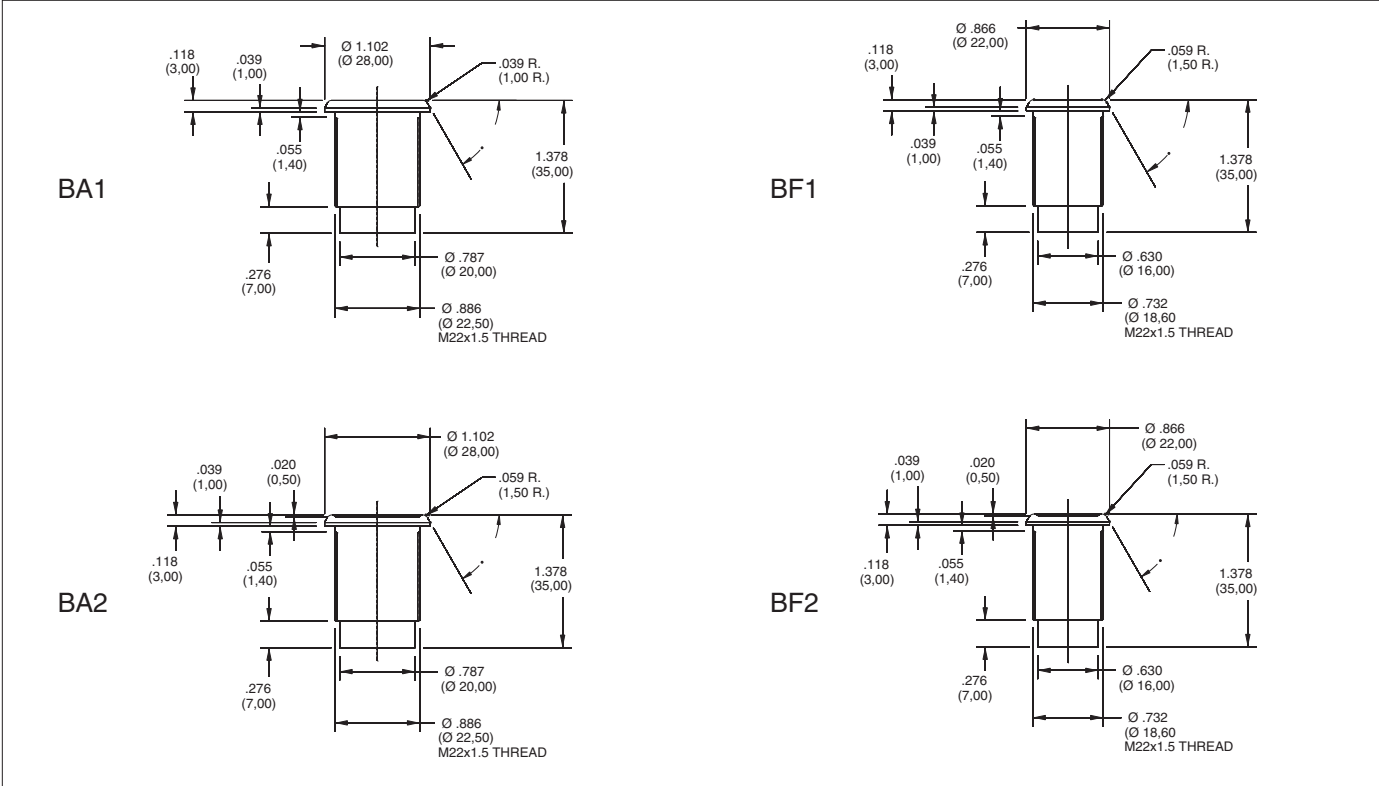
<p>37FBA1-CAAW1N</p>	<p><b>Grayhill Series</b>  <b>Housing Type</b>          BA1, BA2          BF1, BF2  <b>Switch Type</b>          C - Continuous, T - Toggle  <b>Circuitry</b>          A - N.O., B - N.C.  <b>Electrical Specification</b>          AW: 10-24V, .15A AC/DC,          Wire: 1 - Black, 1 - Brown, 2 - Blue</p> <p><b>Housing Color:</b> N - Natural  <b>Housing Material:</b> 1 - Aluminum</p>	<p>Special colors, S.S. and legends available.          Contact Grayhill for more information.</p>
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**Available from your local Grayhill Component Distributor.** For prices and discounts, contact a local Sales Office, an authorized local Distributor in CHINA(Beijing) Tel:(010)6851-9097.

Special configurations and legends available. Contact Grayhill for more information.

Keyboards and Keypads

**DIMENSIONS** In inches (and millimeters)



Keyboards and Keypads

**SPECIFICATIONS**

**Rated Voltage:** 0-24V AC/DC  
**Rate Current:** 0-24 amps.  
**Resistance "ON":** <10 Ohms  
**Resistance "OFF":** >5 megohms  
**Switch Capacitance:** 25pF

**Activation Force:** 3-5N Typ.  
**Switch Action:**  
**Momentary:** 120 Msec. Pulse type  
**Continuous:** Circuit is closed as long as switch is pressed, 30 sec. max.  
**Toggle:** Switch changes position at each activation.

**Lifecycle:** >50 million  
**Operating Temp:** -40°C- 85°C standard. (-40°C- 125°C upon request)  
**Storage Temp:** -40°C- 125°C  
**EMI or RFI Effect:** None  
**Protection System:** IP68 according to IEC529  
**LED:** 5Vdc, 1 max, 10 mA  
**Housing Material:** Aluminum

**ORDERING INFORMATION, 37FBR**

<p>37FBA1-CAAW1N</p>	<p><b>Grayhill Series</b>  <b>Housing Type</b>                  BA1, BA2                  BF1, BF2  <b>Switch Type</b>                  C - Continuous, T - Toggle  <b>Circuitry</b>                  A - N.O., B - N.C.  <b>Electrical Specification</b>                  AW: 10-24V, .15A AC/DC,                  Wire: 1 - Black, 1 - Brown, 2 - Blue</p>	<p><b>Housing Color:</b> N - Natural  <b>Housing Material:</b> 1 - Aluminum</p>	<p>Special colors, S.S. and legends available.                  Contact Grayhill for more information.</p>
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