

Backlit with Self Adhesive Legends



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



3 x 4 Keyboard

Technical drawing of a 3 x 4 Keyboard (Detail A). The drawing includes front and side views with dimensions and terminal pin identification.

Front View Dimensions:

- Top edge: .290 REF (STYLE 1), .368 REF (STYLE 2)
- Left edge: .750, 3 EQ SPS., TOL.NON-ACCUM., .425, 3.100 ± .020
- Right edge: .425, .750, 2 EQ SPS., TOL.NON-ACCUM., .390 SQ. LEGEND INSERT AREA, 2.350 ± .020
- Bottom edge: .425, .750, 2 EQ SPS., TOL.NON-ACCUM., .390 SQ. LEGEND INSERT AREA, 2.350 ± .020

Side View Dimensions:

- Top edge: .100 TYP., .525
- Right edge: .750, 1.500, .800
- Bottom edge: .350, 1.650
- Left edge: .368 REF., .267 REF., .207, .357

Terminal Pin Identification:

SWITCH POSITION IDENTIFICATION

.025 .002 SQUARE TERMINAL PINS 7 PLACES

#6-32 MTG STUD, 4 PLACES

3 x 4 Keyboard

X Y A B C D E F G
H I J K L M N O P Q R

DETAIL A

TERMINAL PIN IDENTIFICATION
DETAIL
SCALE=1.5:1

Technical drawing of a 4 x 4 Keyboard (Detail A). The drawing includes front and side views with dimensions and terminal pin identification.

Front View Dimensions:

- Top edge: .750, 3 EQ SPS., TOL.NON-ACCUM., .425, 3.100 ± .020
- Right edge: .425, .750, 3 EQ SPS., TOL.NON-ACCUM., .390 SQ. LEGEND INSERT AREA, 3.100 ± .020
- Bottom edge: .425, .750, 3 EQ SPS., TOL.NON-ACCUM., .390 SQ. LEGEND INSERT AREA, 3.100 ± .020

Side View Dimensions:

- Top edge: .100 TYP., .490
- Right edge: .775, 2.250, 1.125
- Bottom edge: .310, .750, 1.500, 2.120
- Left edge: .290 REF (STYLE 1), .368 REF (STYLE 2), .267 REF., .207, .357

Terminal Pin Identification:

SWITCH POSITION IDENTIFICATION

.025 .002 SQ. TERMINAL PINS 10 PLCS.

#6-32 MTG STUD, 6 PLACES

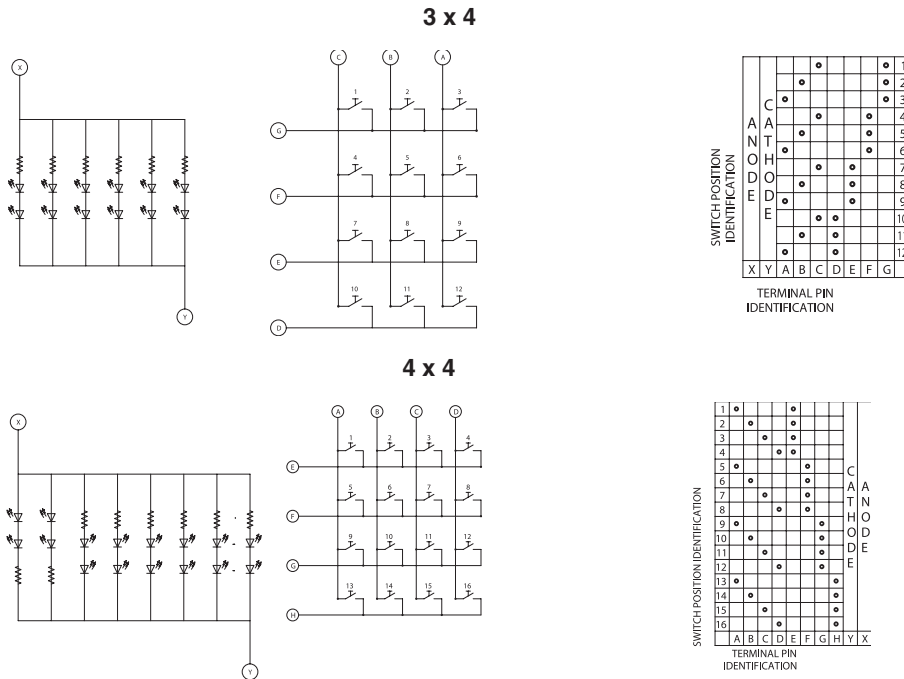
4 x 4 Keyboard

X (H)
Y (H)
H (H)
G (H)
F (H)
E (H)
D (H)
C (H)
B (H)
A (H)

DETAIL A

TERMINAL PIN IDENTIFICATION
DETAIL
SCALE=1.5:1

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/Green	-	1.95	2.40	43	155mA	205mA
Green	1.50	-	2.40	43	155mA	205mA
Orange	-	1.95	2.40	43	155mA	205mA

SPECIFICATIONS

Rating Criteria

Rating at 24 Vdc: - 10 milliamps resistive (max.)

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

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

SELF-ADHESIVE LEGEND SHEETS

Each 8.5" x 11" legend sheet contains commonly used symbols, terms, alpha characters and 0-9 in helvetica bold type. Self-adhesive legends are clear urethane on a chrome mylar base. Adhesive is silicone/acrylic. Legends can be purchased in the following ways:

1. Entire legend sheets: Part numbers 84AC5012-1, -2, -3 OR -4.
2. Individual legends: Part numbers 84AC5012-0001, -0002 etc. (Individual legend pins are for groups of 10 legends each)
3. See Grayhill drawing 84AC5012-X for detailed information on available legends, sizes and fonts.

ORDERING INFORMATION

