

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) showing front and side views with dimensions and terminal pin identification.

Front View Dimensions:

- Overall width: 2.350 ± .020
- Overall height: 3.100 ± .020
- Key pitch (horizontal): .750, 3 EQ. SPS., TOL. NON-ACCUM.
- Key pitch (vertical): .750, 2 EQ. SPS., TOL. NON-ACCUM.
- Key width: .425
- Key height: .425
- Legend insert area: .390 SQ. LEGEND INSERT AREA
- Switch position identification: 12 keys (1-12)

Side View Dimensions:

- Overall depth: .357
- Terminal pin pitch: .290 REF (STYLE 1), .368 REF (STYLE 2)
- Terminal pin width: .025, .002 SQUARE TERMINAL PINS 7 PLACES
- Mounting stud: #6-32 MTG STUD, 4 PLACES
- Mounting stud pitch: .100 TYP.
- Mounting stud diameter: .525
- Mounting stud height: .750
- Mounting stud offset: .350
- Mounting stud distance: 1.650
- Mounting stud height offset: .800
- Mounting stud height offset: 1.500

Terminal Pin Identification:

XY A B C D E F G
 1 2 3 4 5 6 7

DETAIL A
 TERMINAL PIN IDENTIFICATION
 DETAIL
 SCALE=1.5:1

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

Front View Dimensions:

- Overall width: 3.100 ± .020
- Overall height: 3.100 ± .020
- Key pitch (horizontal): .750, 3 EQ. SPS., TOL. NON-ACCUM.
- Key pitch (vertical): .750, 3 EQ. SPS., TOL. NON-ACCUM.
- Key width: .425
- Key height: .425
- Legend insert area: .390 SQ. LEGEND INSERT AREA
- Switch position identification: 16 keys (1-16)

Side View Dimensions:

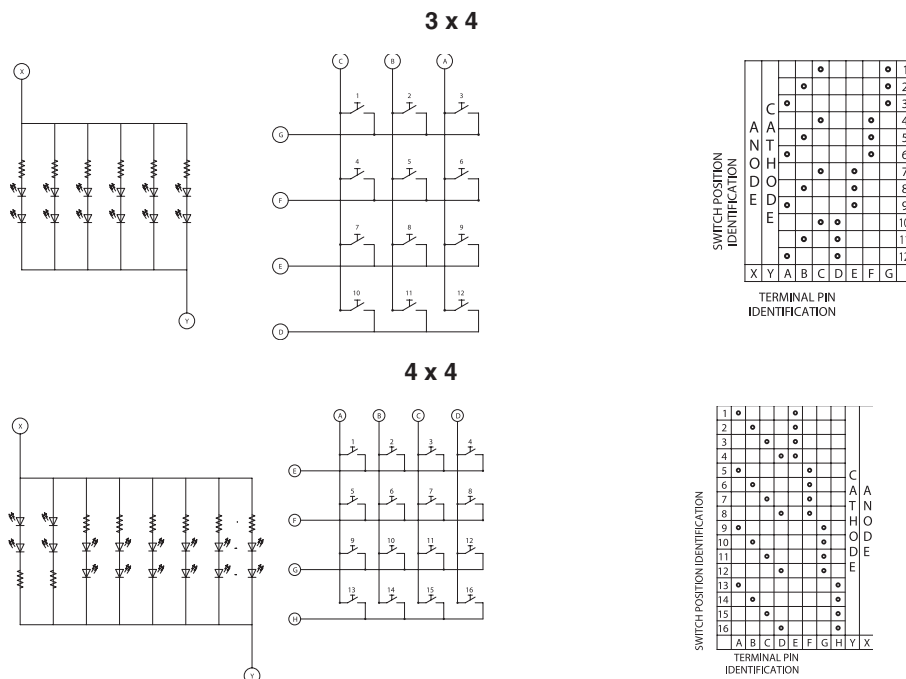
- Overall depth: .357
- Terminal pin pitch: .290 REF (STYLE 1), .368 REF (STYLE 2)
- Terminal pin width: .025, .002 SQ. TERMINAL PINS 10 PLCS.
- Mounting stud: #6-32 MTG STUD, 6 PLACES
- Mounting stud pitch: .100 TYP.
- Mounting stud diameter: .490
- Mounting stud height: .775
- Mounting stud offset: .310
- Mounting stud distance: 1.500
- Mounting stud height offset: 1.125
- Mounting stud height offset: 2.250
- Label: LABEL

Terminal Pin Identification:

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

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

