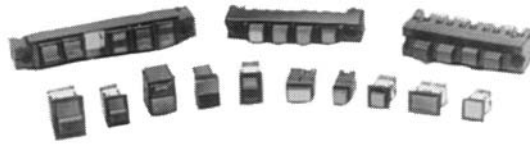


## MML SERIES MINIATURE MANUAL LINE PUSHBUTTON SWITCHES



MML switches offer a large measure of design freedom in a miniature package. Their low profile design answers space and styling needs of computer, business, instrument and communication equipment design. The many design options available plus a modular ordering system, provide flexibility to choose the mounting option, lens colors, illumination means, electrical ratings and circuits, and operating action (including multi-switch interlock ) that best meet specific application needs. Switches, indicators,

lenses, LEDs, incandescent lamps, bezels, mounting clips, strip mounting frames, end rails for matrix mount and multi-switch interlock assemblies are ordered as separate items. To order assembled combinations, to meet special needs, consult your local distributor or nearest Micro Switch sales office. Switch modules available in three styles; solid state, electronic control and power duty.

### SOLID STATE PUSHBUTTON SWITCHES

Hall effect reliability. A permanent magnet plunger moves adjacent to the Hall effect integrated circuit to give a digital current-sinking (normally high and normally low) output. Provides low voltage signals that interface with nearly all DC logic, 5 VDC supply voltage. Momentary action or 2-level alternate action. Printed circuit board or snap-in panel mounting. Legend-

able lenses, LED, incandescent or non-lighted display. For LED display, order LEDs (MML92) and lenses (MML52). For incandescent display, order lamps (MML91) and lenses (MML51). Designed to comply with UL and CSA.

Housing Type (Rectangular)	Mounting	Terminals	Circuitry/Action	Plunger
<b>MML11K</b> Black housing <b>MML11E</b> White housing	<b>A</b> No bezel (PWB mounting) <b>K</b> Black bezel, mtg. clip/long sides <b>M</b> Black bezel, mtg. clip/short sides <b>W</b> White bezel, mtg. clip, long sides <b>P</b> White bezel, mtg. clip/short sides	<b>3</b> Printed wiring board	<b>AA</b> -5-24 VDC sinking mom. action <b>AE</b> -5-24 VDC sinking alt. action	<b>K</b> Black

### ELECTRONIC CONTROL PUSHBUTTON SWITCHES

Available with momentary or 2-level alternate action, 1 or 2 poles, silver or gold contacts. Printed circuit board or snap-in panel mounting; solder terminals for panel-mount version. Legendable lenses. Use as an unlighted pushbutton or add one LED or incandescent lamp for lighted display. For

LED display, order LED (MML92) and lens (MML52). For incandescent display, order lamp (MML91) and lens (MML51). Designed to comply with UL and CSA.

Housing Type	Mounting	Terminals	Circuitry/Action (Each pole is double throw)	Standard Plunger (w/o lens)	1-Piece Plunger Lens Cap buttons
<b>Rectangular:</b> <b>MML21K</b> — Black housing <b>MML21E</b> White housing <b>Square:</b> <b>MML21H</b> Black housing <b>MML21B</b> White housing	<b>Rectangular:</b> <b>A</b> No bezel (PWV mounting) <b>K</b> Black bezel, mtg. clip/long sides <b>M</b> Black bezel, mtg. clip/short sides <b>W</b> White bezel, mtg. clip/long sides <b>P</b> White bezel mtg. clip/short sides <b>Square:</b> <b>A</b> No bezel (PWB mounting) <b>R</b> Black bezel/ mtg. clip <b>T</b> White bezel/ mtg. clip	<b>3</b> Printed wiring board <b>2</b> Solder	<b>Silver Contacts:</b> <b>AA</b> 1 pole, mom. action <b>AB</b> 1 pole, alt. action <b>AC</b> 2 poles, mom. action* <b>AD</b> 2 poles, alt. action*  <b>Gold Contacts</b> <b>BA</b> 1 pole, mom. action <b>BB</b> 1 pole, alt. action <b>BC</b> 2 poles, mom. action* <b>BD</b> 2 poles, alt. action*	<b>K</b> Black <b>W</b> White <b>A</b> No plunger (use with encoded umbrella buttons only.)	For LED Display: <b>H</b> Red <b>L</b> Yellow <b>N</b> Green For incandescent or non-lighted display: <b>R</b> Red <b>B</b> Blue <b>Y</b> Yellow <b>V</b> White <b>G</b> Green <b>Z</b> Black

\*Not available in square housing.

### POWER DUTY PUSHBUTTON SWITCHES

Available in 1 or 2 poles, momentary or 2-level alternate action. Printed circuit board or snap-in panel mounting; solder quick connect terminals for panel-mount version. Legendable lenses (order lenses MML51 separately). Designed to comply with UL, CSA and international standards.

**Note:** MML31 switches do not have a provision for illumination of button. Visual feedback can be achieved by using a 2-level alternate-action switch, or add a companion lighted indicator.

Housing Type: (Rectangular)	Mounting	Terminals	Circuitry/Action (Each pole is single-throw normally open)	Plunger
<b>MML31K</b> — Black housing, non-lighted <b>MML31E</b> White housing, non-lighted	<b>A</b> No bezel (PWB mounting) <b>K</b> Black bezel, mtg. clip/long sides <b>M</b> Black bezel mtg. clip/short sides <b>W</b> White bezel, mtg. clip/long sides <b>P</b> White bezel, mtg. clip/short sides	<b>3</b> Printed wiring board <b>2</b> Solder Quick-connect	<b>AA</b> 1 pole, mom. action <b>AB</b> 1 pole, alt. action <b>AC</b> 2 poles, mom. action <b>AD</b> 2 poles, alt. action	<b>K</b> Black

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