

C&K GP Series Sealed Ultraminiature Pushbutton Switches



A

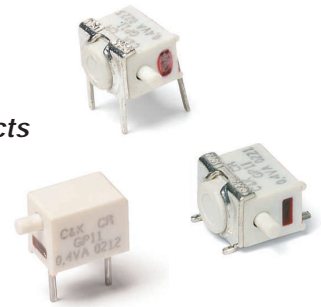
Pushbutton

Features/Benefits

- Ultraminiature design saves space
- Process compatible, withstands most soldering and washing processes
- Thru-hole and surface mount models available
- Sealed construction—internal o-ring and epoxy base

Typical Applications

- Telecommunications and network equipment
- Computers and peripheral products
- Instrumentation



Specifications

CONTACT RATING: 0.4 VA max. @ 20 V AC or DC max.
 MECHANICAL & ELECTRICAL LIFE: 40,000 make-and-break cycles at full load.
 CONTACT RESISTANCE: Below 50 mΩ typ. initial @ 2-4 V DC, 100 mA.
 INSULATION RESISTANCE: 10⁹Ω min.
 DIELECTRIC STRENGTH: 500 Vrms min. @ sea level.
 OPERATING TEMPERATURE: -30°C to 85°C.
 SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).
 DEGREE OF PROTECTION: IP57; Protection against harmful dust deposit, full-scale voltage protection, temporary immersion.
 PACKAGING: Surface mount switches standard in anti-static tape and reel packaging per EIA 481-3, see page A-74 for drawings and reel information.

Materials

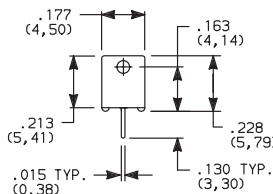
HOUSING & BASE: Glass filled nylon 4/6, flame retardant, heat stabilized (UL 94V-0).
 ACTUATOR: Glass filled nylon 4/6, flame retardant (UL 94V-0) with standard internal o-ring seal.
 SWITCH SUPPORT: Brass, tin plated.
 MOVABLE CONTACT: Copper alloy, with gold plate over nickel plate.
 STATIONARY CONTACTS (Thru-hole models): Copper alloy, with gold plate over nickel plate.
 TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.
 TERMINAL SEAL: Epoxy/Urethane. All terminals insert molded.
NOTE: Materials listed above are general specifications. Specifications available for specific and custom switches, consult Customer Service Center.
CAUTION: PC mounting layouts and pads as shown are designed to be compatible with the latest equipment and reflow techniques. Care should be taken in the design and location of PC lands to suit individual needs. Orientation relative to reflow direction may significantly impact solder joint integrity.

How To Order

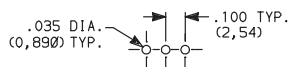
Complete part numbers for GP Series Sealed Ultraminiature Pushbutton Switches are shown on pages A-71 thru A-73.

PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MCKE	OFF	MOM.	 SPST
Conn. Terms.	OPEN	1-3	
GP12MCKE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

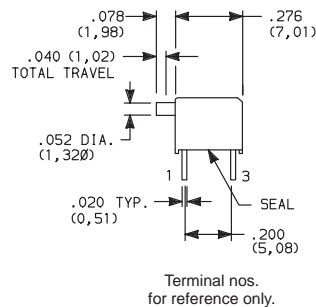
MOM. = Momentary



PC MOUNTING



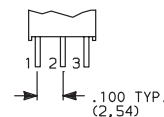
GP11—omit center hole.



Terminal nos. for reference only.



GP11MCKE
SPST



GP12 Model



Dimensions are shown: IN (mm)
 Dimensions subject to change

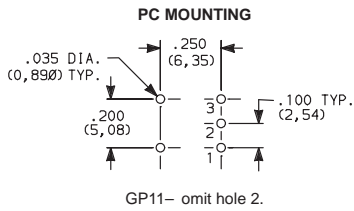
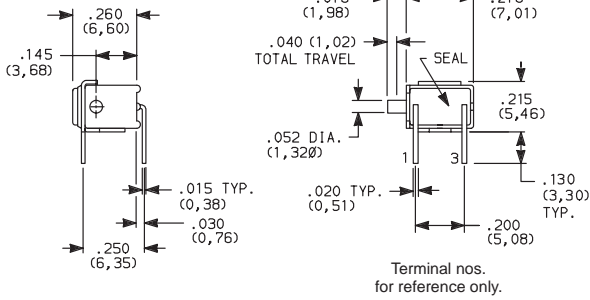
C&K GP Series Sealed Ultraminiature Pushbutton Switches



A
Pushbutton



GP11MAKE
SPST

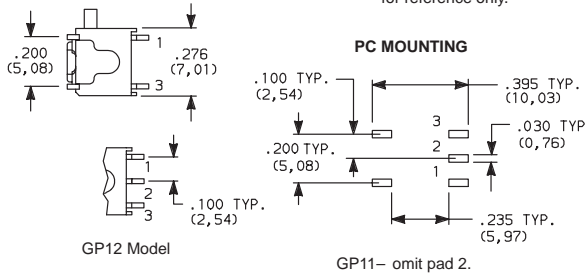
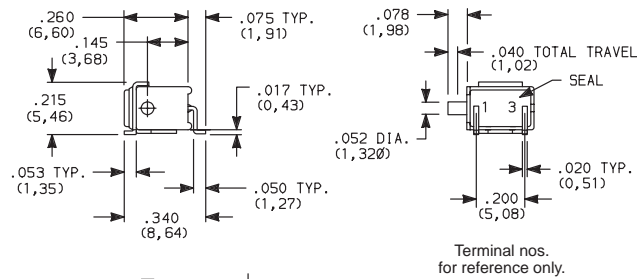


PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MAKE	OFF	MOM.	 SPST
Conn. Terms.	OPEN	1-3	
GP12MAKE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary



GP11MSAKE
SPST

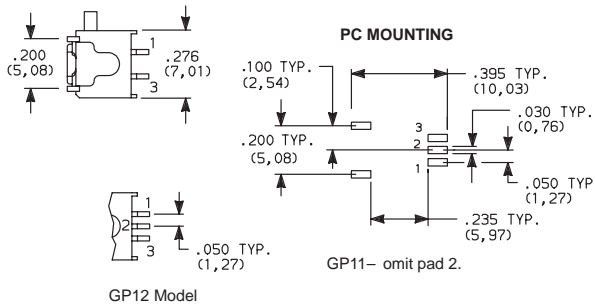
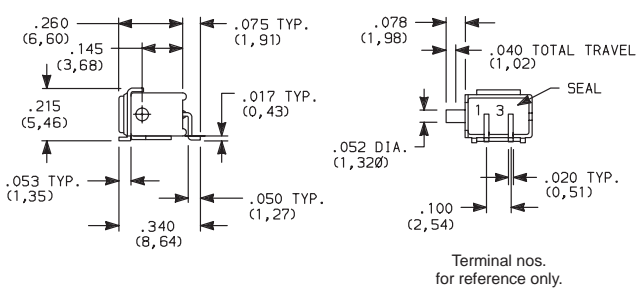


PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MSAKE	OFF	MOM.	 SPST
Conn. Terms.	OPEN	1-3	
GP12MSAKE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary



GP11MSA1KE
SPST



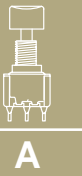
PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MSA1KE	OFF	MOM.	 SPST
Conn. Terms.	OPEN	1-3	
GP12MSA1KE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary



Third Angle Projection
Dimensions are shown: IN (mm)
Dimensions subject to change

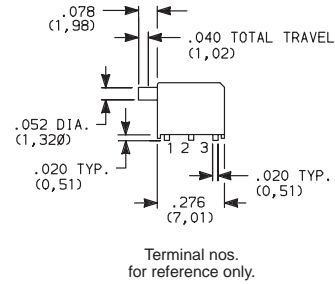
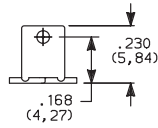
C&K GP Series Sealed Ultraminiature Pushbutton Switches



Pushbutton

PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP12MSCKE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary

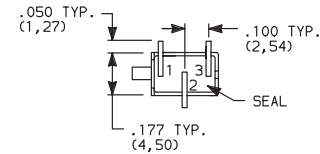
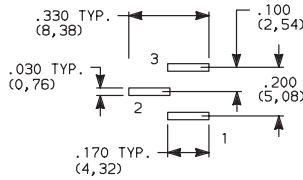


SMT

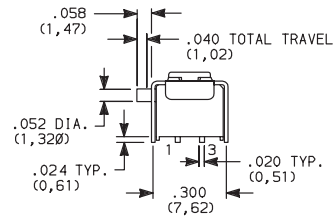
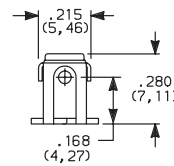


GP12MSCKE
SPDT

PC MOUNTING



NOTE: Recommended for infrequent use applications only
For increased switch mounting strength, order, SV1 termination style with support bracket (see next page).



SMT

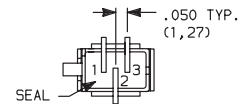
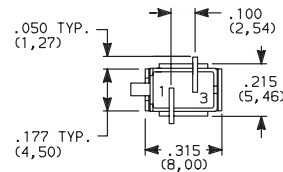
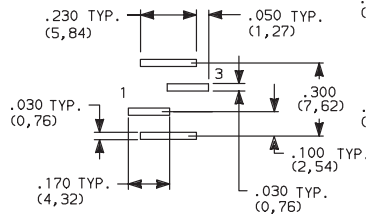


GP11MSV1KE
SPST

PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MSV1KE	OFF	MOM.	 SPST
Conn. Terms.	OPEN	1-3	
GP12MSV1KE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary

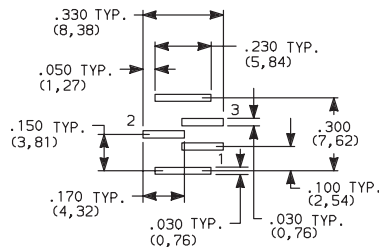
PC MOUNTING GP11 MODELS



GP12 Model

Terminal nos. for reference only.

PC MOUNTING GP12 Models



Third Angle Projection

Dimensions are shown: IN (mm)
Dimensions subject to change



Cannon

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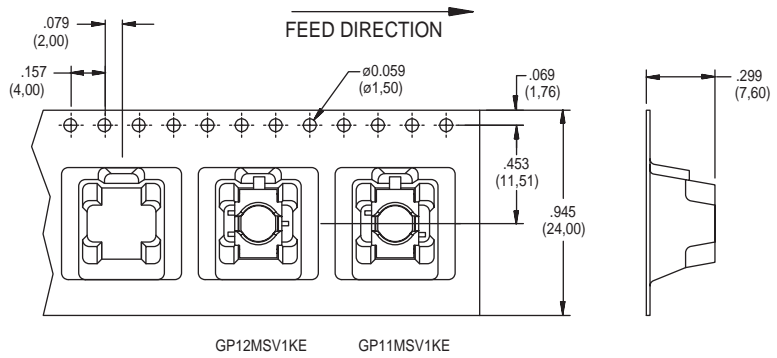
A

Pushbutton

TAPE & REEL

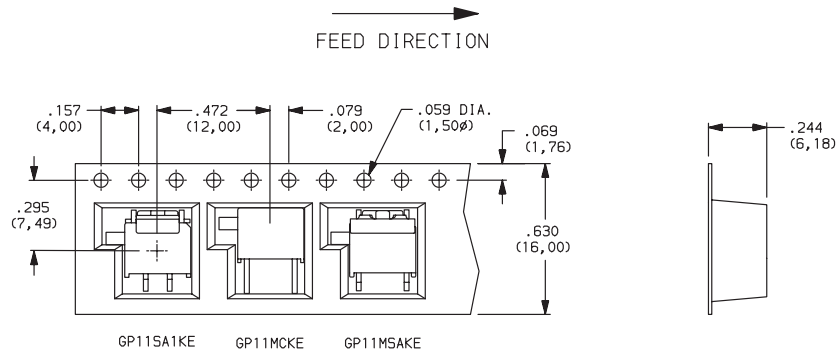
For part numbers GP11MSV1KE, GP12MSV1KE

REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.512 (13,0)
QUANTITY PER REEL	600



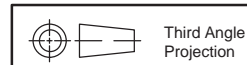
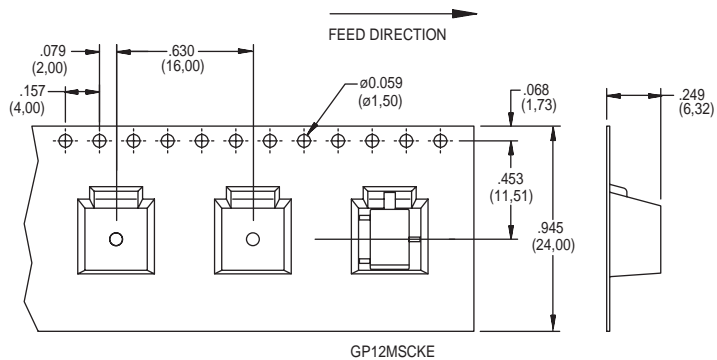
For part numbers GPXXSA1KE, GPXXMCKE, GPXXMSAKE

REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.512 (13,0)
QUANTITY PER REEL	600



For part numbers GP12MSCKE

REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.512 (13,0)
QUANTITY PER REEL	600



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Dimensions subject to change