



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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C&K GP Series Sealed Ultraminiature Pushbutton Switches

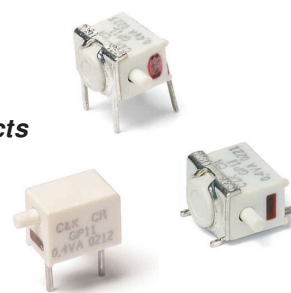
A
Pushbutton

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

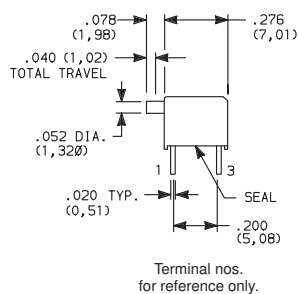
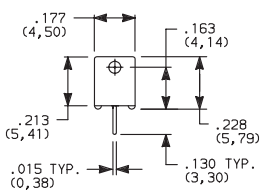
HOUSING & BASE: Glass filled nylon 4/6, flame retardant, heat stabilized (UL 94V-0).
 ACTUATOR: Glass filled nylon 4/6, flame retardant (UL 94V-0) with standard internal o-ring seal.
 SWITCH SUPPORT: Brass, tin plated.
 MOVABLE CONTACT: Copper alloy, with gold plate over nickel plate.
 STATIONARY CONTACTS (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

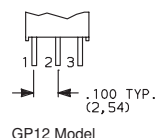
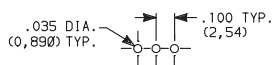
Complete part numbers for GP Series Sealed Ultraminiature Pushbutton Switches are shown on pages A-71 thru A-73.

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

MOM. = Momentary



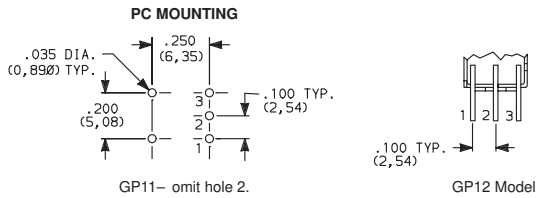
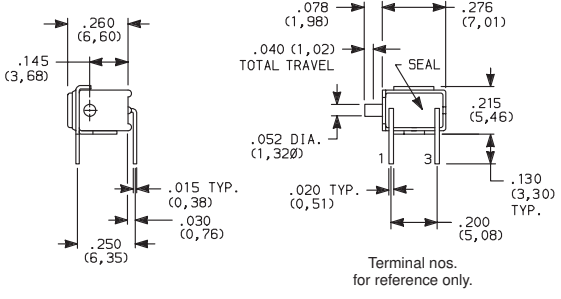
PC MOUNTING



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

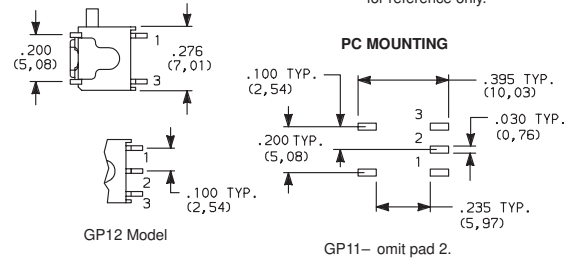
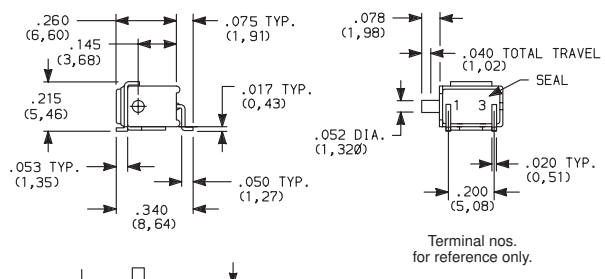
C&K GP Series Sealed Ultraminiature Pushbutton Switches

Pushbutton
A



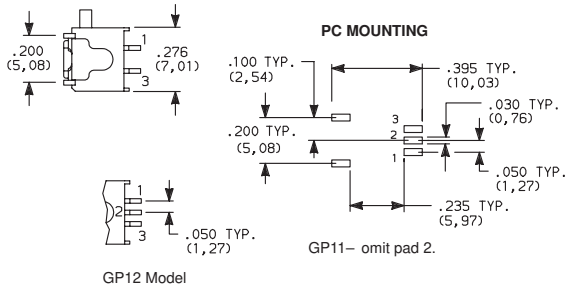
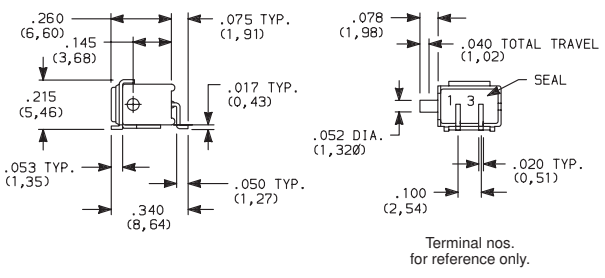
PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MAKE	OFF	MOM.	 SPST
Conn. Terms.	OPEN	1-3	
GP12MAKE	ON	MOM.	 SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary



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



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	

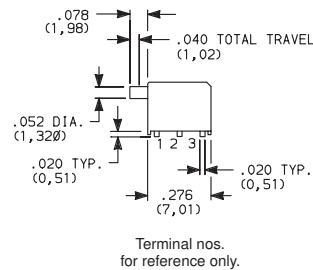
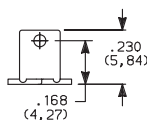
MOM. = Momentary

C&K GP Series Sealed Ultraminiature Pushbutton Switches

A
Pushbutton

PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP12MSCKE	ON	MOM.	<p>NC 1 ● 2 (COMM) ● 3 NO</p> <p>SPDT</p>
Conn. Terms.	2-1	2-3	

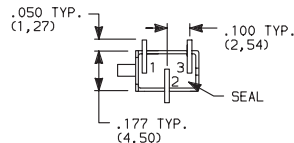
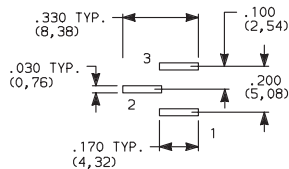
MOM. = Momentary



SMT



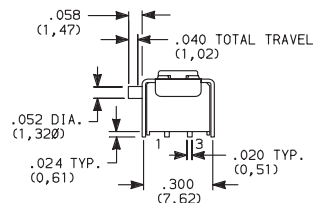
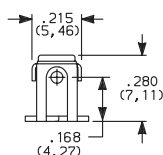
PC MOUNTING



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

PART NUMBER	SWITCH FUNCTION		SCHEMATIC
	POS. 1	POS. 2	
GP11MSV1KE	OFF	MOM.	<p>1 ● 3</p> <p>SPST</p>
Conn. Terms.	OPEN	1-3	
GP12MSV1KE	ON	MOM.	<p>NC 1 ● 2 (COMM) ● 3 NO</p> <p>SPDT</p>
Conn. Terms.	2-1	2-3	

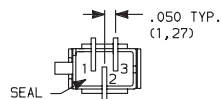
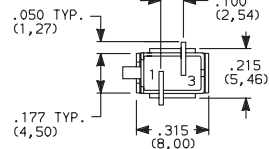
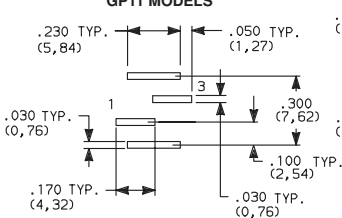
MOM. = Momentary



SMT

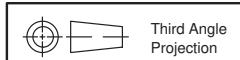
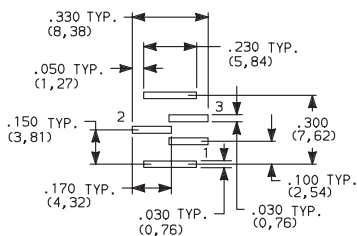


**PC MOUNTING
GP11 MODELS**



GP12 Model
Terminal nos. for reference only.

**PC MOUNTING
GP12 Models**



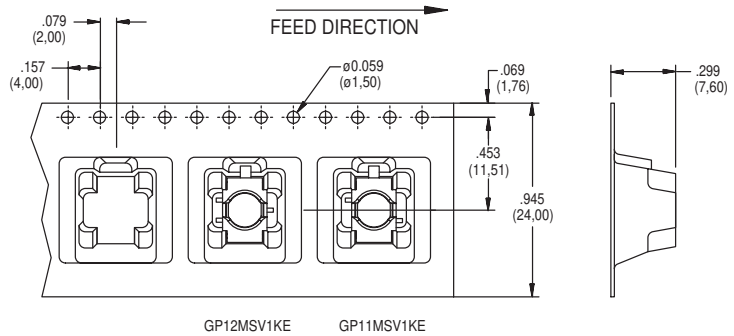
Dimensions are shown: IN (mm)
Dimensions subject to change

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TAPE & REEL

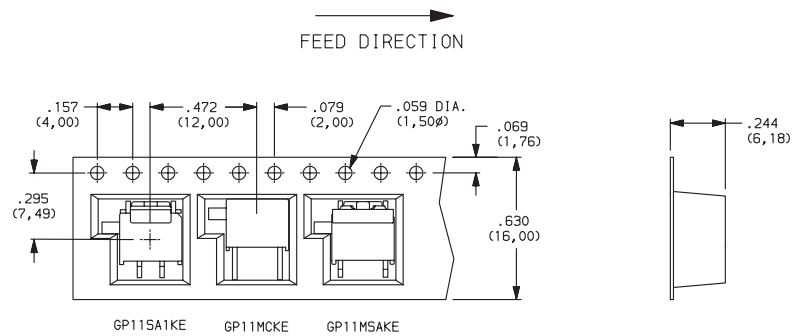
For part numbers GP11MSV1KE, GP12MSV1KE

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



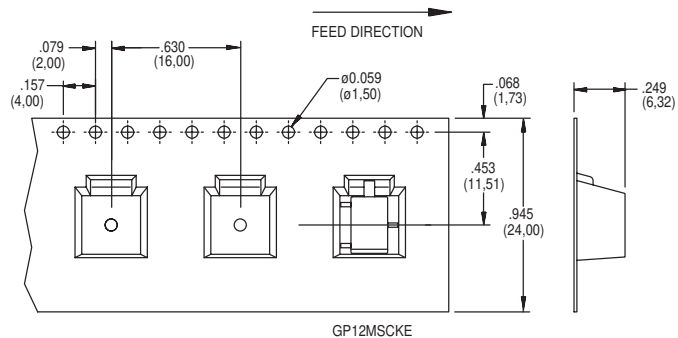
For part numbers GPXXSA1KE, GPXXMCKE, GPXXMSAKE

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



Third Angle
Projection

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