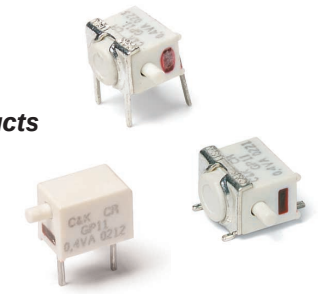
C&K GP Series
Sealed Ultraminiature Pushbutton Switches

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: $10^9\Omega$ min.

DIELECTRIC STRENGTH: 500 Vrms min. @ sea level.

OPERATING TEMPERATURE: –30ºC to 85ºC.

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.

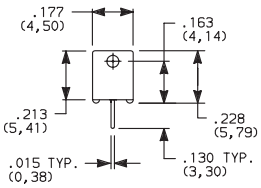
CAUTION: PC mounting layouts and pads as shown are designed to be compatible with the latest equipment and reflow techniques. Care should be taken in the design and location of PC lands to suit individual needs. Orientation relative to reflow direction may significantly impact solder joint integrity.

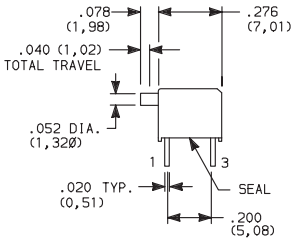
How To Order

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

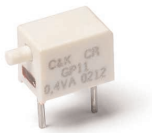
PART NUMBER	SWITCH FUNCTION POS.1	SWITCH FUNCTION POS. 2	SCHEMATIC
GP11MCKE	OFF	MOM.	
Conn. Terms.	OPEN	1-3	SPST
GP12MCKE	ON	MOM.	
Conn. Terms.	2-1	2-3	SPDT

MOM. = Momentary



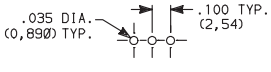


Terminal nos. for reference only.

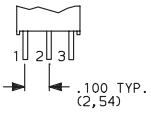


GP11MCKE
SPST

PC MOUNTING



GP11– omit center hole.



GP12 Model

Third Angle Projection

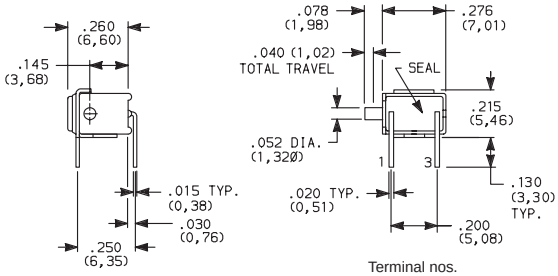
Dimensions are shown: IN (mm)
Dimensions subject to change

Downloaded from Arrow.com.

C&K GP Series
Sealed Ultraminiature Pushbutton Switches

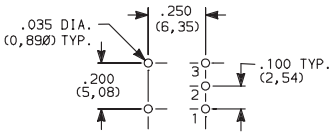


GP11MAKE
SPST

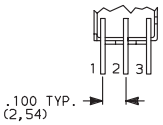


Terminal nos.
for reference only.

PC MOUNTING



GP11– omit hole 2.



GP12 Model

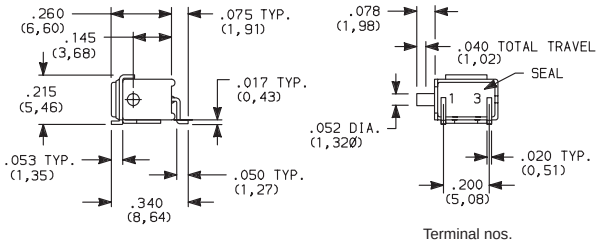
PART NUMBER	SWITCH FUNCTION POS.1	SWITCH FUNCTION POS. 2	SCHEMATIC
GP11MAKE	OFF	MOM.	1 3 SPST
Conn. Terms.	OPEN	1-3	
GP12MAKE	ON	MOM.	2 (COMM) NC 1 3 NO SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary

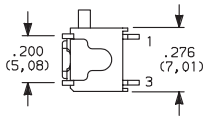
SMT

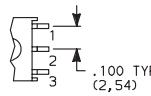


GP11MSAKE
SPST



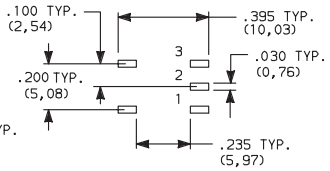
Terminal nos.
for reference only.





GP12 Model

PC MOUNTING



GP11– omit pad 2.

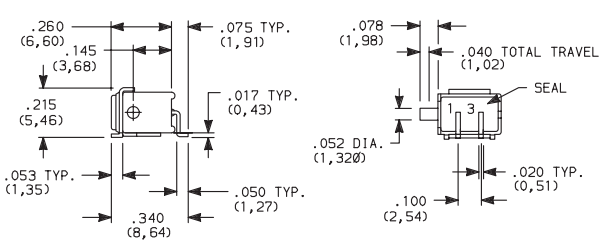
PART NUMBER	SWITCH FUNCTION POS.1	SWITCH FUNCTION POS. 2	SCHEMATIC
GP11MSAKE	OFF	MOM.	1 3 SPST
Conn. Terms.	OPEN	1-3	
GP12MSAKE	ON	MOM.	2 (COMM) NC 1 3 NO SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary

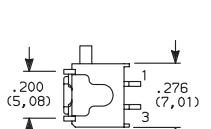
SMT

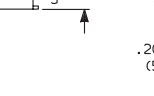


GP11MSA1KE
SPST



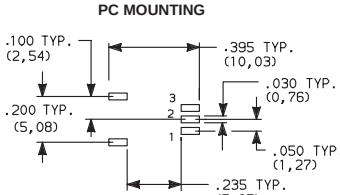
Terminal nos.
for reference only.





GP12 Model

PC MOUNTING



GP11– omit pad 2.

PART NUMBER	SWITCH FUNCTION POS.1	SWITCH FUNCTION POS. 2	SCHEMATIC
GP11MSA1KE	OFF	MOM.	1 3 SPST
Conn. Terms.	OPEN	1-3	
GP12MSA1KE	ON	MOM.	2 (COMM) NC 1 3 NO SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary

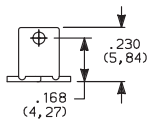
Third Angle Projection

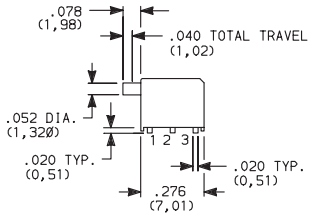
Dimensions are shown: IN (mm)
Dimensions subject to change

Downloaded from Arrow.com.

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

MOM. = Momentary





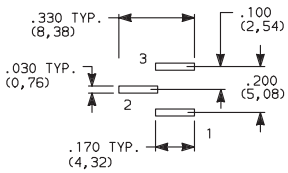
Terminal nos.
for reference only.

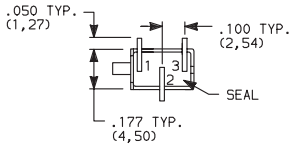
SMT



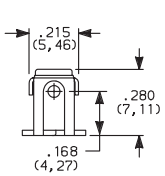
GP12MSCKE
SPDT

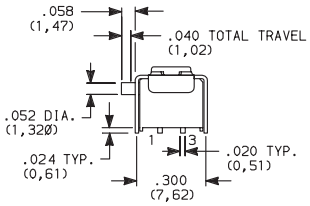
PC MOUNTING





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





SMT

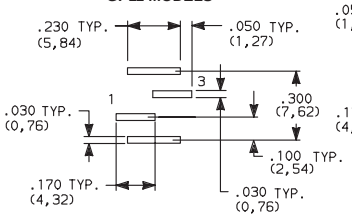


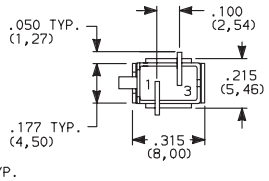
GP11MSV1KE
SPST

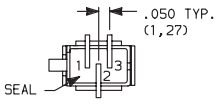
PART NUMBER	SWITCH FUNCTION POS.1	SWITCH FUNCTION POS. 2	SCHEMATIC
GP11MSV1KE	OFF	MOM.	1 3 SPST
Conn. Terms.	OPEN	1-3	
GP12MSV1KE	ON	MOM.	2 (COMM) NC 1 3 NO SPDT
Conn. Terms.	2-1	2-3	

MOM. = Momentary

PC MOUNTING
GP11 MODELS



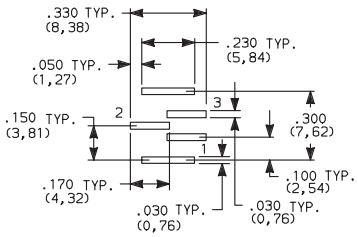




GP12 Model

Terminal nos.
for reference only.

PC MOUNTING
GP12 Models



Third Angle Projection

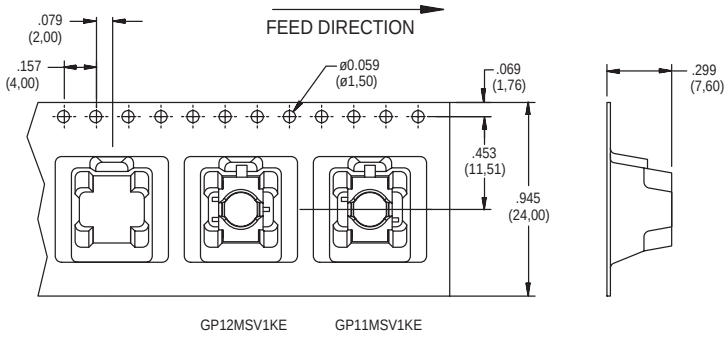
Dimensions are shown: IN (mm)
Dimensions subject to change

Downloaded from Arrow.com.

TAPE & REEL

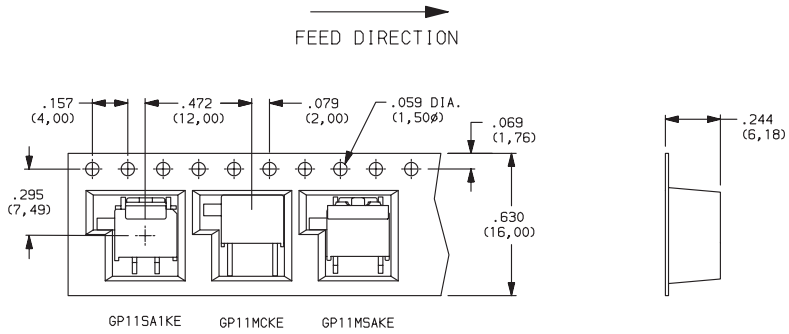
For part numbers GP11MSV1KE, GP12MSV1KE

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



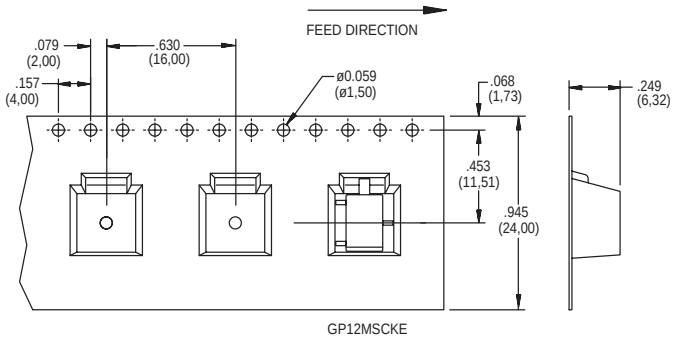
For part numbers GPXXSA1KE, GPXXMCKE, GPXXMSAKE

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

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