Burgess

Standard Size, Double-Break Switches

Moulded-cased, two or four-circuit, changeover switches which open or close the conductors at two points. True bi-stability and positive snap-action are important features of the whole series. Two-circuit switches (K5 references) are exceptionally highly rated at 25 amperes (recommended maximum) and are offered with a variety of integral actuators. Four-circuit switches (M2 references) have plunger actuators which may be used alone or with auxiliary lever actuators.



Two-circuit plunger actuators



Two-circuit cam-following actuator



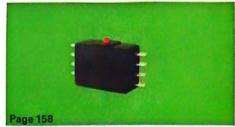
Two-circuit spring plunger actuator



Two-circuit plain lever actuator



Two-circuit roller-lever actuator



Four-circuit plunger actuator The above switches are described individually on the pages indicated. Auxiliary actuators for the four-circuit switch are listed on page 158.

onstruction

The two-circuit mechanism comprises two pivoted contact carrying arms controlled by a coil spring. Four-circuit switches have two such mechanism linked by a glass rod. Silver contacts throughout.

Enclosure

Strong moulded case and lid.

Actuators

Moulded plunger, wedge-shaped internally pivoted cam-follower or spring plunger in a moulded screwed sleeve. Stainless steel levers, with or without free-running nylon roller.

K5 series two-circuit switches: four down-pointing brass 6.3 mm quick-connect tabs. M2 series four-circuit switches: eight horizontally aligned solder tabs.

nstallation and Service

Two side-mounting holes provided. Use M2.5, M2.6 or #4 screws for M2 series 4 circuit switches, and M3.5 or #6 screws for K5 series two-circuit switches. One switch in the latter series, reference K5Q, is provided with a screwed plunger sleeve which may be used for single hole mounting. Either a clearance hole of 12.7 mm (0.5 in) recommended diameter or a 11.9 mm (0.47 in) diameter hole tapped 32 TPI Whitworth form is required.

Environmental Data

Mechanisms enclosed to IP40, with open terminals. Recommended continuous working temperature limits are -10° to +85°C.

Check regularly for cleanliness and wear.

Sub-miniature double-break switches - pages 33 and 91-93. Miniature double-break switches - pages 44 and 134. Positive action switches in cases similar to those of K5 series switches pages 80 and 205-207.

Electrical Ratings

Ratings in the following tables are in amperes and are recommended maxima. Switches may be used to control one or two loads per mechanism but the slightly lower DC ratings shown in brackets apply when two loads per mechanism are switched

Table 1

Connections Normally Closed

Diagram of

K5 series Two-circuit switches

Diagram of

Connections

Voltage	Resistive Load		Tungsten Lamp Load		Inductive Load	
AC						
125	25		5		15	
250	25		5		15	
380	17.5				15	
480	15				15	
DC						
Up to 15	25		5		15	(12)
30	15		5 3 2		7	(5)
50	5	(3)	3		2	
75	3	(1.5)	2	(1.5)	1	
125	1	(0.5)	1		0.5	
250	0.5	(0.25)	0.5	(0.4)	0.25	

Table 2

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4	~	-

M2 series Four-circuit switches

Voltage	Resistive Load		Tungsten Lamp Load		Inductive Load	
AC						
125	15		3	15		
250	15		3	15		
380	15			15		
400	15			15		
DC						
Up to 15	15		3	12		
30	15		3 3 3	7	(3)	
50	5		3	2	(1)	
75	5 2	(1)	3	1	(0.25	
125	1	(0.5)	1	0.5	(0.1)	
250	0.5	(0.25)	0.4	0.25	(0.05	

Burgess Standard Size Double-Break Switches

K5KR



Actuator

Normal action lever with free-

running roller

Mechanism Two-circuit, double-break

Terminals Four 6.3 mm (0.25 in) quick-connect tabs

Electrical Rating Recommended maximum 25A

on 125 or 250 Vac.

Full ratings on page 55 (Table 1)

Free Position (max) 38.6 mm 1.52 in Operating Position 32.0 1.26 in

 $\pm 1.5 \, \mathrm{mm}$

Movement Differential (max)3.2 mm0.13 inAvailable OvertravelDepress to caseActuating Force (max)1.5 N5.4 ozfRelease Force (min)0.38 N1.28 ozf

Mechanical Life Between 1 and 10 million

operations

Enclosure Mechanism: IP40 Exposed terminals

Temperature -10° to +85°C

Weight 27 g max Approvals* CSA, UL

This model and similar models are described in detail on page 55

