

# Switches, Micro, Operators

## TECHNICAL DATA AND DIMENSIONS

BRITISH PATENT No: 738422

U.S.A. PATENT No: 2828372

# BULGIN

### MAX. ELECTRICAL DATA @ 50 ~

List No.	Making, Carrying & Peak-Breaking A.		R.M.S. Working V.		R.M.S. Proof Test V.*	
	@ Up to 12V.	@ 125 to 250V.	Across Contacts to E.	Contacts to Drive Means	Between Contacts & Contacts to E.	Cont'ts to drive Means
† S.520 to † S.528	6A.	3A.	250V.	250V. 500V.	500V.	500V. 1KV.
† S.530 to † S.532	4A.	3A.	250V.	250V. 500V.	500V.	500V. 1KV.

\* I.R. is taken @ 500V. = (i.e. D.C.), for  $\leq 100M\Omega$  dry or recovered

### MECHANICAL DATA

List No.	Colour Code	Nom. Contact Gap	Average Pre-Travel	Max. Differential	Max. Over-Travel	Operating Pressure
† S.520 † S.521 † S.522	Red Yellow Green	0.01" 0.25 mm	$\frac{1}{32}$ " 0.8 mm	0.015" 0.4 mm 0.015" 0.4 mm 0.020" 0.5 mm	0.025"	3-6 ozs. 6-10 ozs. 10-16 ozs.
† S.524 † S.525	Yellow Green	0.02" 0.5 mm	$\frac{1}{32}$ " 0.8 mm	0.015" 0.4 mm 0.020" 0.5 mm	0.62 mm (For Longest Life Limit to 0.010")	6-10 ozs. 10-16 ozs.
† S.527 † S.528	Yellow Green	0.03" 0.75 mm	$\frac{1}{32}$ " 0.8 mm	0.020" 0.5 mm 0.030" 0.75 mm		6-10 ozs. 10-16 ozs.
† S.530 † S.532	Red Green	0.01" 0.25 mm	0.055" 1.4 mm	0.03" 0.75 mm	0.050" 1.3 mm preferably 0.025" 0.62 mm	25-50 gms. 50-100 gms.

Every model has S.P.C.O. contacting, and so is universal for ON OFF, OFF ON, or CHANGE OVER, giving minimum stocking. Normal Max. and Min. Sinusoidal Rates of Operation (incl. permitted 'pretravel' and 'over travel' for all models).

**FASTEST:** 1 full cycle of total drive plus total retraction in 0.1 Sec. (100 mS.), = all drive in 0.05 Sec., = 10 cycles of movement per Sec.

**SLOWEST:** 1 full cycle in 4.0 Sec. = total drive in 2 Sec. =  $\frac{1}{2}$ " C/S.

† Stainless Steel Button specially to quantity order. Add /A to List No.

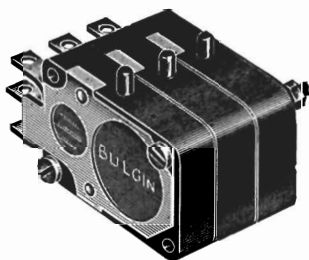
Add Suffix to List No. of Switch	Description
/W.*	Operator-leaf (short) with Stainless Steel Wire extension
/L.*	Operator-leaf-Blade Nickel-Silver
/L./R.B.* /L./P.* †	Operator leaf fitted with Brass Roller Operator leaf fitted with Nylon Roller
/SL./R.B.	Side bracket and integral leaf-operator fitted with Brass Roller
SA.2260	Bracket and Push Button attachment for S.530 and S.532 <b>Fixing Dimensions</b> Bracket and Case: $2 \times 4$ BA, 3.6 mm, $\phi$ clearing holes at $2\frac{1}{2}$ " 60.3 mm, crs. Push Button: $2 \times 8$ BA, 2.2 mm, $\phi$ clearing holes at $\frac{3}{4}$ " 13.9 mm, crs.

\* Complete with side brackets and fixing nuts and bolts.

† Brass and Nylon are Standard Roller Materials. Other materials to special order only.

### FIXING HOLE DETAILS

4 HOLES  $\frac{3}{32}$ " (2.4 mm) DIA @  $1 \pm 0.003$  (25.4 mm CR'S.  $\times \frac{1}{8} \pm 0.003$  15.9 mm)



Bulgin 'M' type Micro-Switches can easily be stacked in groups, as illustrated above, either plain or when fitted with attachments.

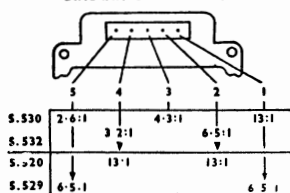


List No: S.530-532

Illustration showing internal mechanism of switch, as seen through new TRANSPARENT covers.

Bulgin Miniature Micro-Switches List Nos. S.520-528 and S.530-532 can have side covers which are moulded in clear TRANSPARENT material, which enables the switch mechanism to be inspected, as illustrated above. A small extra charge may be incurred.

DIAGRAM OF LEVERAGES



Leaf, Roller and Wire operators pivot in side plates as illustrated, which are provided with holes giving five different pivot positions. The ratios of the reduction in operating pressure is shown on the above diagram (where 1 = the listed pressure for the basic switch).