# KEYBOARD SWITC IES

A range of small, lightweight, PCB mounting keyboard switches for data entry and instrument switching. Two part caps are available for all switches, with a coloured base and clear top, for customised labeling.

# **TACTILE SWITCHES**

Uses such as time setting, instrument function selection, intercom switching etc.

## KHC 10901

Momentary contacts, push to make, 1 pole.

Spec

Contact: Operating Force:

Stroke:

Contact resistance: Life:

Max current:

500,000 cycles min 50mA at 12VDC (a)--(0)

100m ohms max

0.05mm

Mechanical

130 + /- 50g

0.3 + 0.2 mm

1-24 18p

25.99 16p

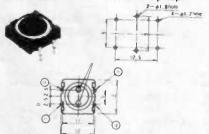
100+ 15p

# KHC10902

Stock No.

53-10901

As KHC10901 but with built in cap top.



Stock No. 53-10902 1-24 18p 25.99 16p

100+ 15p

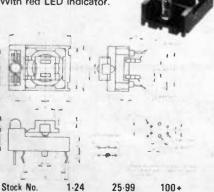
# KHC15601

Right angle version of KHC10901.

Stock No. 1-24 25-99 100+ 53-15001 22p 18p 17p

# KHC11901

With red LED indicator.



28p

26p

31p

### KHF10901

Double action tactile switch proiding two movements in one unit. With initial push the first contact position is 'ON', with further pressure the second contact also switches 'ON'



Specification:

Stroke:

Maximum current: 20mA at 12VDC 1st position 90

Operating force:

+/-40gms 2nd position

280 + / - 100 gms1st position 0.7

+/-0.3mm overall stroke 1 +/-0.4mm

Contact resistance Maximum 100mR 200,000 cycles minimum Operational life:

1.24 29p

25-99

26p

25p

100+

# KHE10901

Small, PC mounting keyboard switch with changeover contacts.

Specification:

Stock No.

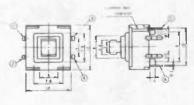
53-30901

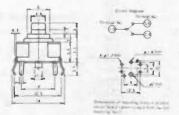
Maximum op current: Operating force:

Stroke: Contact resistance: Operating life:

20mA at 12VDC 100 + / - 40 gms0.6m + /-0.2mm100m ohms maximum 100,000 cycles min







Stock No. 1.24 25.99 100+

53-60901 29p 27p 23p

# KEF10901 (Soft Touch)

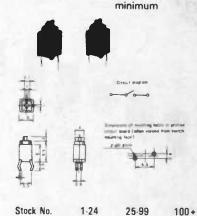
Very small, single key switch. Uses unique conductive rubber contact and is suitable for use where pulse input to logic circuits are required.

Specification:

Maximum current: Operating force: Stroke:

Contact resistance: Operational life:

20mA at 12VDC 80 + / - 40 gms1 + /-0.3mm 1k ohms maximum 100,000 cycles



18p

# **KEC11901**

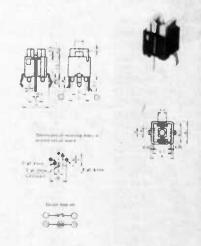
53-40901

With integral red LED.

Small high performance switch using rubber contact.

16p

15p



Specification:

Operating force: Stroke:

80 + / - 40 gms0.8 + 0.4 mm-0.1mm

Contact resistance: Operational life:

1k ohm maximum 100,000 cycles

Stock No. 1-24 25.99 100+

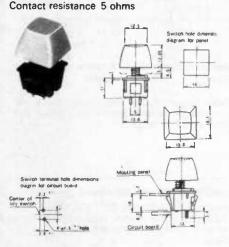
53-11901

# KCC10002

Data entry keyboard with with high reliability and minimum 10 million operations.

Specification:

 $\begin{array}{lll} \text{Maximum current:} & 100\text{mA at } 12\text{VDC} \\ \text{Operating force:} & 90 + / - 25\text{gms} \\ \text{Key stroke:} & 3.5 + / - 0.5\text{mm} \end{array}$ 



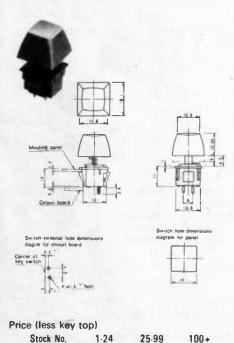
### Price less keytop

53-70902

Stock No.	1-24	25-99	100+
53-70002	24p	22p	20p

# KCC10902

As KCC10002 type but self locking.



48p

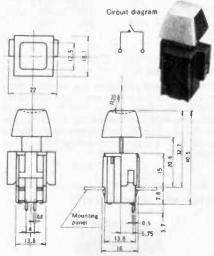
42p

38p

## KGF10021

Data entry keyboard switch with reed switching element. Minimum 20 million operations.

Specification:



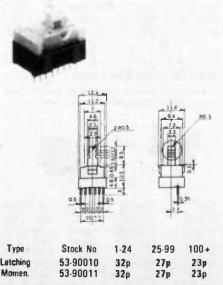
Switch terminal hole dimensions diagram for circuit board



Price (less keytop)
Stock No. 1-24 25-99
53-80021 62p 55p

# SUT SERIES SWITCHES

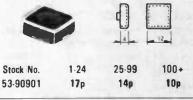
Small PC mounting double pole changeover switch. Available in latching or momentary operation.



# **KEYSWITCH CAPS**

## KT5 SERIES

Small square keytop to suit types KHC10901, KHF11901 and KHE10901. Two part moulding, blue base, with clear top to allow user legend to be inserted.



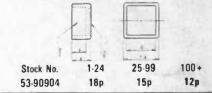
## KT6 SERIES

'Piano Key' type top to suit KH11901. Colour black.



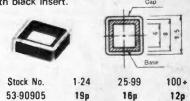
## **KT7**

Small square keytop to suit type KEF10901. Two part moulding, clear top with ivory base to allow user legend to be inserted.



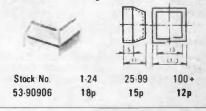
# КТ9

Small square keytop with centre cutout to suit type KEC11901. Two part moulding, clear top with black insert.



# KT2-1

Two part cap for use with KCC10002, KCC10902, and KGF10021. Clear top with ivory base, to allow user legend to be inserted.



# KT2-2

Double width version of KT1-1



# SWITCHES - KEYBOARDS

## KT3-1 (Numbered)

One piece keytop in ivory colour available with a range of letters and numbers.





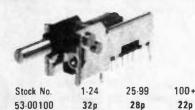


Legend	Stock No.	Legend	Stock No.
0	53-90910	9	53-90919
1	53-90911	T	53.90920
2	53-90912	C	53-90921
3	53-90913	CE	53-90922
4	53-90914	Р	53.09023
5	53-90915	+	53.90924
6	53-90916	_	53.90925
7	53-90917	2	53.90926
8	53-90918		
Prices	1 24	25-99	100+
	9p	8p	7 p

## **LEVER SWITCHES**

#### SLR1

Miniature low profile switch with integral chrome finish knob. 2 pole changeover.



# MINIATURE TOGGLE

Sub-miniature switches available in single pole changeover, double pole changeover and 3 position single pole changeover with centre off. Contacts rated 3A at 125VAC. Mounting hole 6mm dia.



Stock No	Туре	1-24	25.99	100+
53-00200	SPCO	65p	55p	49p
53-00201	DPCD	85p	76p	68p
53.00202	3p SPCO	85p	76p	68p

# MAINS TOGGLE

Panel mounting double pole changeover mains toggle switch with solid terminals. Contacts rated at 1.5A 250VAC. Mounting hole 12mm.



Stock No	Туре	1-24	25+
53-00208	OPCO	95p	86p

## **MINIATURE PUSH**

Sub-miniature push to make switch. Rated 1A at 240VAC.



Stock No.	Type	1.24	25-99	100+
53-00300	P-t-M	30p	26p	210
53.00302	P·t·B	30p	26p	21p

# **DUAL-IN-LINE**

A range of sub miniature DIL switches with various configurations etc. Contacts rated 50VDC at 10mA static, 5VDC at 100mA operating. Contact resistance 100 milliohms maximum. Contact life better than 10,000 operations. Insulation resistance 100m ohms minimum.

# **TYPE DNS - SLIDE LEVER**



DNS04 53-04009 4xSPST 81p	69p
ONSO6 53-06009 6xSPST 88p	76p
DNS08 53-08009 8xSPST 1.40	1.10

# **TYPE DNT - PIANO LEVER**

Switch is 'on' when lever is in lower position.



Туре	Stock No.	No. ways	1.9	10.99
DNT4	53-40009	4xSPST	1.05	90p
DNT8	53-80009	8xSPST	1.45	1.20

# TYPE SPC - ROCKER LEVER

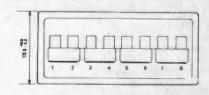
Transparent covers available to special order only - please call sales office for details.





Туре	Stock No.	No. ways	1.9	10.99
SPC002	53-00209	2xSPST	88p	76p
SPC004	53.00409	4xSPST	1.40	1.10
SPC006	53-00609	6xSPST	1.45	1.20
SPC008	53-00809	8xSPST	1.70	1.60
SPC010	53-01009	10xSPST	2.00	1.85

# **TYPE BX - SLIDE LEVER CHANGEOVER**



Туре	Stock No.	No. ways	1.9	10.99
B-8AX	53-84009	4xSPST	2.10	1.95

Other types of BX changeover types are available on special order only - please call sales office for details.

## SRQ BCD/HEX PROGRAMME SWITCH

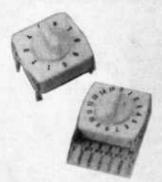
PCB mounting 10 way BCD and 16 way HEX BCD programme switch. Both types available in either verticle or horizontal mounting. Spec:

Contacts: Lifetime: 6V at 100mA. Resistance less than 10hm. Resistance less than

1 ohm after 10,000 operations.

Operational

Temp:  $-30 \text{ to } +70^{\circ}\text{C}$ Coding: Standard 4-bit

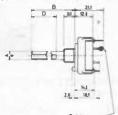


Stock No	Mounting	No. Ways	1-24	25-99
53-01102	Vertical	10	1.28	1.05
53-01103	Horizontal	10	1.28	1.05
53-01162	Vertical	16	1.38	1.24
53-01163	Horizontal	16	1.38	1.24

## ROTARY

Rotary wafer switches with adjustable limit stops. Suitable for 250VAC/DC at 150mA (non reactive). Spindle 0.25" dia, 30° indexing, make before break.











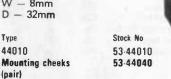


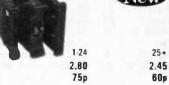
Stock No.	Circuit	1-24	25-99	100+
53-21024	1p 12 way	54p	50p	46p
53-21025	2p 6 way	54p	50p	46p
53-21026	3p 4 way	54p	50p	46p
53-21027	4p 3 way	54p	50p	46p
	53-21024 53-21025 53-21026	53-21024 1p 12 way 53-21025 2p 6 way 53-21026 3p 4 way	53-21024 1p 12 way 54p 53-21025 2p 6 way 54p 53-21026 3p 4 way 54p	53-21024 1p 12 way 54p 50p 53-21025 2p 6 way 54p 50p 53-21026 3p 4 way 54p 50p

# **THUMBWHEEL SWITCH 4400**

Front mounted, 10 position (0-9) BCD coded switch with complement outputs as well as straight BCD. Expected life over half million cycles. Character height 5mm. Snap together construction with push-in mounting cheeks.

H - 34mm W - 8mm





# THUMBWHEEL SWITCH J1009

Front mounted miniature 10 position (0-9) BCD coded switch. Expected life in excess of half million cycles. Snap together construction with pushin mounting cheeks. Character height 3mm

H - 15mm W - 6mm D - 16mm



Туре	Stock No	1-24	25+
J1009 Mounting cheeks (pair)	53-41009 <b>53-42009</b>	2.65 55p	2.45 45p

# **LOW PROFILE KEYBOARD KL0025**

Low profile tactile keyboard. Front mounting with single pole x 12 configuration. Contact life 1 million operations at full rating (MTBF). Contact rating 50mA at 28VDC. Contact resistance 500 milliohms max at .2mA at 17VDC. 12 keys 0-9,

L - 69mm W - 50mm D - 5mm

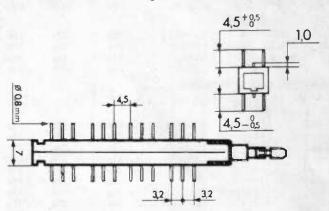


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Туре	A CONTRACTOR OF THE PARTY OF TH		
	Stock Na	1.24	25+
KL0025	53-60025	10.20	9.50

## **DIALISTAT SWITCHES**

(Not recommended for new designs)



SWITCH BLO	CKS			
Switch Blocks	Stock No.	1.9	10+	
2 pole C/O				
Latching	53-70060	31p	28p	
Push/push	53-70061	32p	29p	
4 pole C/O				
Latching	53-70062	41p	37p	
Push/push	53-70063	43p	39p	
6 pole C/O				
Latching	53-70064	51p	46p	
Push/push	53-70065	52p	48p	
8 pole C/O		1/10/10/19/5		
Latching	53-70066	63p	57p	
Push/push	53-70067	64p	58p	
Disale selece in	aluda, black and	i-iti-	Innation au	d

Block prices include: block, spring, retaining clip, location cup, dust cap,

# **BRACKETS AND LATCHBARS**

May be cut to exact length by user. Holes on 5mm pitch. Brackets (Latchbars)

	Stock No.	1.9	10+
10 hole	53-70080	12p	9p
	53-70081	(9p)	(9p)
20 hole	53-70082	16p	14p
	53-70083	(12p)	(9p)
30 hole	53·70084	21p	18p
	53·70085	(14p)	(12p)
50 hole	53-70086	26p	23p
	53-70087	(16p)	(14p)

Use the bracket/latchbar with the number of holes 'rounded up' to a standard value.

# **ILLUMINATED SYSTEM**

This is simply a special button and LED holder used in connection with the standard switch. Remember to allow an extra switch pole to light the LED

8	Stock No.	1-9	10+
LED holder	53.70090	9p	7p
Button	53-70091	20p	15p

See standard PL for details of various coloured LEDs.

# PIANO KEY CONVERSIONS & PUSH BUTTONS

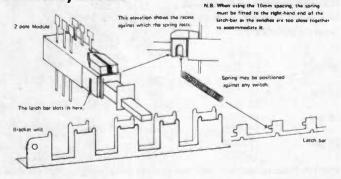
A pivot bar for up to 10 button positions is supplied as standard, which must be cut to suit your exact requirement.

	Stock No.	1.9	10+
Pivot shaft	53.70070	45p	39p
Shaft holder	53-70071	10p	Вр
Slider cap	53.70072	9p	Вр
Piano key button	53-70073	22p	18p

SUE SERIES SWITCH				
SWITCH MODULES	Stock No	1.24	25.99	100+
C/O modules inc spr				
2p	53.70000	26p	22p	17p
4p	53-70001	35p	30p	25p
6p	53-70001	43p	38p	33p
8p	53-70003	51p	46p	41p
BRACKETS AND L	ATCHBARS			
Brackets - 10, 15 or	20mm nitches			
Please state 10, 15 o				
2 way	53-70010	20p	17p	15p
3 way	53-70011	25p	22p	19p
4 way	53.70012	29p	24p	21p
5 way	53-70013	31p	27p	23p
6 way	53-70014	34p	30p	27p
7 way	53.70015	36p	33p	29p
8 way	53.70016	38p	35p	31p
9 way	53.70017	40p	37p	33p
10 way	53.70018	42p	39p	35p
Latchbars - to interlo	ock, 10, 15 or 20mm			
2 way	53.70020	10p	8p	6р
3 way	53.70021	10p	8p	6p
4 way	53.70022	12p	10p	8p
5 way	53-70023	12p	10p	8p
6 way	53-70024	14p	12p	10p
7 way	53-70025	16p	14p	12p
8 way	53.70026	18p	16p	14p
9 way	73-70027	18p	16p	14p
10 way	53.70028	18p	16p	14p

When ordering switches please state either interlocking push-push momentary action for each block. It is also very helpful to enclose a simple schematic of the switch bank you intend to build so we may endeavour to supply the correct parts regardless of possible errors in ordering.

# **Assembly Details**



# MAINS SWITCHES



SDU Mains switch 7 amp 240V compatible with SUE bracket including 2 pole SUE switch.

OOL SWILL		
ock No.	25-99	100+
3-70040	86p	75p
	9	
	3000	
	-0	
	19	

SDS Mains	switch 5 amp 240v	compatible with SUE	bracket.
Stock No.	1.24	25.99	10+
53-70050	62p	52p	45p

# KNOBS FOR PUSH BUTTON SWITCHES

Code X fits Dialastat Code Y fits Alps switches

Code	Stock No	Description	1-24	25.99	100+
XY	53-50010	7.5x11.5mm black	9p	7p	6p
XY	53-50011	7.5x11.5mm red	9p	7p	6р
XY	53.50012	11x15mm black	10p	9p	8p
XY	53-50013	10x13mm chrome	13p	11p	10p
X	53-50014	9.5x5.5mm taper black	9p	7p	6р
X	53-50015	9.5x5.5mm taper red	9p	7 p	6р
XY	53-50017	Rect. as MkIII tuner	14p	1Óp	9р
	XY XY XY XY X	XY 53-50010 XY 53-50011 XY 53-50012 XY 53-50013 X 53-50014 X 53-50015	XY 53-50010 7.5x11.5mm black XY 53-50011 7.5x11.5mm red XY 53-50012 11x15mm black XY 53-50013 10x13mm chrome X 53-50014 9.5x5.5mm taper black X 53-50015 9.5x5.5mm taper red	XY     53-50010     7.5x11.5mm black     9p       XY     53-50011     7.5x11.5mm red     9p       XY     53-50012     11x15mm black     10p       XY     53-50013     10x13mm chrome     13p       X     53-50014     9.5x5.5mm taper black     9p       X     53-50015     9.5x5.5mm taper red     9p	XY 53-50010 7.5x11.5mm black 9p 7p XY 53-50011 7.5x11.5mm red 9p 7p XY 53-50012 11x15mm black 10p 9p XY 53-50013 10x13mm chrome 13p 11p X 53-50014 9.5x5.5mm taper black 9p 7p X 53-50015 9.5x5.5mm taper red 9p 7p

