Clifford & Snell

Tom Cribb Road, Thamesmead
London SE28 0BH
Tel: +44(0)20 8316 4477
or (0)20 8317 1717
Fax: +44(0)20 8317 2400
Email: cliffordandsnell@aol.com
www.cliffordandsnell.com

VP SERIES

VP SERIES

Miniature Cradle Relays

- World-wide compatibility
- mV/mA to 5A or 250V switching
- Bistable magnetic latching types
- Mounting options
- BT23 and 32 approved types
- Life tested to 100,000,000 mechanical operations
- Comprehensive technical service
- Broad custom capability

Keyswitch Varley VP Series miniature cradle relays offer contact, coil and mounting options to meet many applications. They are extremely reliable, proven through many years' manufacture and use, and are compatible with all similar products manufactured world-wide.

Our engineers can offer invaluable advice on the choice of relay best suited to your requirements.

SUMMARY OF TYPES

BASIC VP SERIES

Contacts – 2 4, 6 and 8 pole contact arrangements are available, with a choice of contact materials to suit applications from low to heavy duty.

Coils – Nominal coil voltages range from 6 to 200V dc, with three types of coil to give the user a liberal choice of operating voltages.

AC Operation – For ac operation a range is available with built-in rectifiers. See also shaded pole (long coil) VPAC Series.

Sensitive Operation – Special adjustments can be made which provides increased sensitivity of operation, denoted by 'SEN' in the ordering code.

Mounting – Available as a plug-in relay (also suitable for direct wiring) or for printed circuit mounting with alternative pin layouts.

VPR SERIES

Bistable, polarised relays with either single or double wound coils, capable of being pulsed at a minimum of ten milliseconds.

VPL SERIES

Similar to the Basic VP Series but having longer coils offering an extended voltage range.

VPAC SERIES

This is a shaded pole version of the VPL (longer coil) series, suitable for ac operation on 50hz supplies (other frequencies to special order).

BRITISH TELECOM APPROVED RELAYS

These relays conform to British Telecom codes BT23 and BT32. For BT23 the contact material is always code 'G' whilst for BT32, code 'F' is used. Solderability of all relay terminals complies with BT specification.

SOCKET AND RETAINING CLIP

Relay sockets and retaining clips (ordered separately) are available to suit the different case sizes. Sockets are available with printed circuit pins or solder tags.

OMISSION OF EARTH SCREW/PIN

For applications where the earthing facility is not required, the earth screw or pin can be omitted, obviating the need to drill printed circuit boards or panels.

EARTH CLIP

Wiring sockets are supplied complete with an earth clip (loose piece) enabling the relay to be earthed via the fixing screw.

STANDARD CONTACT ARRANGEMENTS AND CASE SIZE – FIG. I

CONTACT TYPE		S				TC				5A				HD			
NO. OF POLES		2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8
BASIC	M			2	3			2	3			2	3				
VP	B			2	3			2	3			2	3				
SERIES	C	1	2	3		1	2	3		1	2	3		2	3		
SEN	M			2	3												
OPTION	B			2	3												
	C	1	2	3													
VPR	M			2				2				2					
SERIES	B			2				2				2					
	C	1	2			1	2			1	2			2			
VPL	M			5				5				5					
SERIES	B			5				5				5					
	C	4	5			4	5			4	5			5			
VPAC	M			5												5	
SERIES	B			5												5	
	C	4	5			4	5			4	5			5			

M=make, B=break, C=changeover, S=standard single contact (0.2 or 1amp), TC=twin contact (0.2 or 1amp)
5A=5amp single contact, HD=heavy duty 5amp (increased pin spacing)
Shaded area gives case size and availability (confirm with sales department)

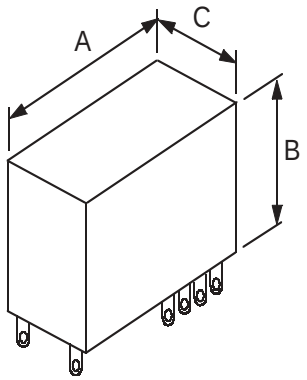
Tom Cribb Road, Thamesmead
London SE28 0BH
Tel: +44(0)20 8316 4477
or (0)20 8317 1717
Fax: +44(0)20 8317 2400
Email: cliffordandsnell@aol.com
www.cliffordandsnell.com

VP SERIES

Clifford & Snell

CASE SIZE, RETAINING CLIP & SOCKET CODING – FIG. 2

Case Size	Dimensions (see drawing)			Printed Circuit Socket	Wiring Socket	Retaining Clip
	A	B	C	Order Code	Order Code	Order Code
1	24.4	30.1	18.5	SVP10P01	SVP10W01	SVP10RC01
2	30.0	30.1	18.5	SVP16P01	SVP16W01	SVP16RC01
3	36.0	30.1	18.5	SVP22P01	SVP22W01	SVP22RC00
4	24.4	40.0	18.5	SVP10P01	SVP10W01	SVP10RCL00
5	30.0	40.0	18.5	SVP16P01	SVP16W01	SVP16RCL00
An earth clip is supplied with each Wiring Socket (loose part).						



COIL DATA

BASIC VP SERIES – FIG 3

Short coils (case 1, 2 or 3, see Fig. 1 & 2). The tables below list the characteristics of all standard Basic VP Series relay coils. Note, against 'Minimum Volts' the sub-headings refer to the various options. i.e. S = low level or light duty single contacts. TC = twin contacts. 5A = 5 amp contacts. HD = heavy duty contacts. SEN = sensitive adjustment. The characters below these sub-headings refer to the number of poles and the contact action, i.e. M = make, B = break, C = changeover.

COIL TYPE (Nominal voltage) Max. power at 2˚C amb. = 2W						6	12	14	21	26	34	47	72	90	120
Resistance (ohm) ±10% (except *±15%)						52	185	280	430	700	1250	2500	5800	*9000	*15000
Number of Turns						1750	3200	3800	4700	5900	7700	11000	16000	20000	24000
MAXIMUM VOLTS (40˚C ambient)						10	19	23	29	37	49	70	106	128	166
MIN. VOLTS	S	TC	5A	HD	SEN										
	2C					2.6	5.0	6.5	8.0	11.0	15.0	21.0	33.0	42.0	58.0
	4C,6M,6B			2C		4.0	8.0	10.0	11.0	16.0	22.0	31.0	50.0	62.0	86.0
		2C	2C			3.4	6.8	7.7	10.2	13.2	19.0	27.0	41.0	50.0	70.0
					2C	2.3	4.3	5.3	6.4	8.2	11.0	17.0	23.5	30.0	43.0
		4C,6M,6B	4C,6M,6B	4C		4.8	9.6	11.4	14.6	19.0	27.0	38.4	58.0	72.0	100.0
					4C,6M,6B	3.3	6.3	7.7	10.0	12.3	16.5	26.0	35.0	43.5	58.0

M TYPE COILS – FIG 4

M Type (short) coils for relays with 6C, 8M or 8B contact actions and for other actions where lower minimum operating voltage is required. Designated in the ordering code by 'M' immediately after the coil voltage.

COIL TYPE (Nominal voltage)						6M	12M	17M	21M	26M	34M	47M	65M	100M	120M
Resistance (ohm) ±10% (except *±15%)						28	110	220	325	530	890	1700	3200	7600	*11750
Number of Turns						1350	2700	3700	4450	5800	7300	9900	13400	20700	24800
MAXIMUM VOLTS (40˚C ambient)						7.4	14.6	20.6	25	32	42	56	77	120	150
MIN. VOLTS	S	TC	5A	HD	SEN										
	2C					1.9	3.9	5.4	6.5	8.3	11.0	15.5	21.5	33.0	43.0
	4C,6M,6B			2C		2.82	5.8	8.2	10.1	12.4	17.0	23.8	32.0	51.0	65.0
		2C	2C			2.36	4.9	6.9	8.5	10.6	14.3	20.4	29.0	46.0	59.0
					2C	1.54	3.2	4.4	5.6	6.9	8.9	11.9	19.2	28.0	35.0
		4C,6M,6B	4C,6M,6B	4C	6C,8M,8B	3.3	6.9	9.5	11.7	14.9	19.6	27.2	38.4	60.0	71.0
					4C,6M,6B	2.2	4.6	6.2	7.8	9.6	12.5	18.7	25.0	39.0	50.0
	6C,8M,8B					4.3	8.6	12.4	15.3	19.0	25.0	36.0	50.0	76.0	98.0
		6C,8M,8B	6C,8M,8B			6.0	11.0	17.0	20.0	25.0	33.0	45.0	60.0	90.0	115.0