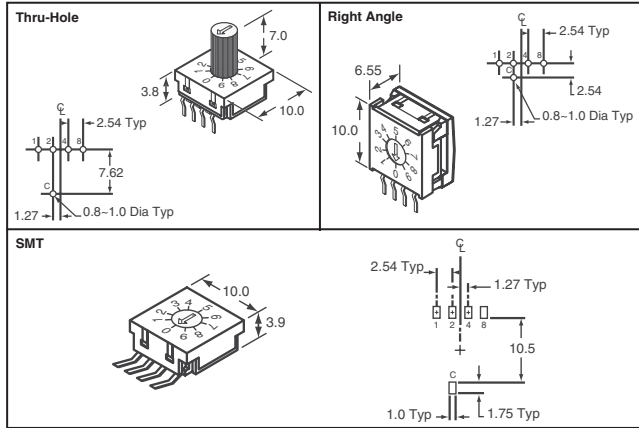


10mm Rotary DIP Switches



Specifications: • Switching Rating: 100mA @ 5VDC; Non-switching Rating: 100mA @ 50VDC; • Contact Resistance: 100mΩ maximum • Mechanical Life: 10,000 detent operations minimum • Electrical Life: 10,000 detent operations minimum **Materials and Finishes:** • Actuators: Glass fiber reinforced polyamide (UL94V-0) • Movable Contacts: Copper alloy with gold plating • Stationary Contacts: Phosphor bronze with gold plating • Terminals: Phosphor bronze with gold plating **Operating Temperature Range:** -25°C - 85°C **Note:** These devices are not process sealed. Hand clean locally using alcohol based solution.



Code	Termination	Actuator	Digi-Key Part No.	Price Each			NKK Part No.	
				1	25	100		
BCD	SMT	Flush	360-2211-1-ND†	3.90	3.12	2.47	FR02FR10P-R	
	SMT	Flush	360-2211-2-ND‡	942.50/500			FR02FR10P-R	
	Thru-Hole	Flush	360-2198-ND	3.48	2.16	1.96	FR01FR10P-S	
	Thru-Hole	Extended	360-2206-ND	3.48	2.16	1.96	FR01KR10P-S	
	Right Angle	Flush	360-2197-ND	3.77	2.34	2.12	FR01FR10H-S	
	Right Angle	Extended	360-2205-ND	3.77	2.34	2.12	FR01KR10H-S	
BCD Comp	SMT	Flush	360-2209-1-ND†	3.90	3.12	2.47	FR02FC10P-R	
	SMT	Flush	360-2209-2-ND‡	910.00/500			FR02FC10P-R	
	Thru-Hole	Flush	360-2194-ND	3.48	2.16	1.96	FR01FC10P-S	
	Thru-Hole	Extended	360-2202-ND	3.48	2.16	1.96	FR01KC10P-S	
	Right Angle	Flush	360-2193-ND	3.77	2.34	2.12	FR01FC10H-S	
	Right Angle	Extended	360-2201-ND	3.77	2.34	2.12	FR01KC10H-S	
Hex	SMT	Flush	360-2212-1-ND†	3.90	3.12	2.47	FR02FR16P-R	
	SMT	Flush	360-2212-2-ND‡	910.00/500			FR02FR16P-R	
	Thru-Hole	Flush	360-2200-ND	3.48	2.16	1.96	FR01FR16P-S	
	Thru-Hole	Extended	360-2208-ND	3.48	2.16	1.96	FR01KR16P-S	
	Right Angle	Flush	360-2199-ND	3.77	2.34	2.12	FR01FR16H-S	
	Right Angle	Extended	360-2207-ND	3.77	2.34	2.12	FR01KR16H-S	
Hex Comp	SMT	Flush	360-2210-1-ND†	3.90	3.12	2.47	FR02FC16P-R	
	SMT	Flush	360-2210-2-ND‡	910.00/500			FR02FC16P-R	
	Thru-Hole	Flush	360-2196-ND	3.48	2.16	1.96	FR01FC16P-S	
	Thru-Hole	Extended	360-2204-ND	3.48	2.16	1.96	FR01KC16P-S	
	Right Angle	Flush	360-2195-ND	3.77	2.34	2.12	FR01FC16H-S	
	Right Angle	Extended	360-2203-ND	3.77	2.34	2.12	FR01KC16H-S	
Snap-On Knob for Flush Actuators				360-2246-ND	1.32	.73	.62	AT4180

† Cut Tape ‡ Tape and Reel

COPAL ELECTRONICS

CUS Series – Low Profile Compact Slide Switches



Features: • Low profile version of 1.4mm **Specifications:** • Operating Temperature: -20°C - 70°C • Switching Current: 300mA @ 4VDC • Insulation Resistance: 100MΩ minimum • Contact Resistance: 70mΩ maximum **Applications:** • Mobile stereos • LCD TVs • Camcorders

Dim. in mm

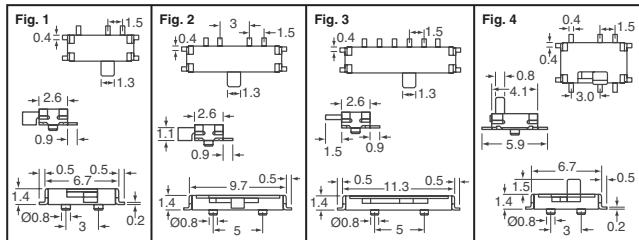


Fig.	Description	Digi-Key Part No.	Cut Tape Price Each			Tape and Reel ‡	Copal Electronics Part No.	
			1	10	100			
1	SPDT, Gull Wing	563-1102-1-ND	1.07	.69	.50	2,500	392.00/M	CUS-12TB
2	SP3T, Gull Wing	563-1103-1-ND	1.12	.72	.52	2,500	408.00/M	CUS-13TB
3	SP4T, Gull Wing	563-1104-1-ND	1.22	.79	.57	2,500	446.00/M	CUS-14TB
4	DPDT, Gull Wing	563-1105-1-ND	1.16	.75	.54	1,400	423.00/M	CUS-22TB

‡ For Tape and Reel part number, change 1-ND to 2-ND.

COPAL ELECTRONICS



DIP Switches

CES Series

Features: • Excellent contact stability by twin gold-plated contacts • Fine click action **Specifications:** • Operating Temperature: -40°C - 85°C • Non-washable • Contact Rating (non-switching): 50VDC @ 100mA • Contact Rating (switching): 6VDC @ 100mA or 24VDC @ 25mA • Maximum Contact Resistance: 50mΩ

CHS Series

Features: • Meets EIAJ SOP standard outline dimensions (B type) • Low profile design of 2.5mm • Excellent contact stability by twin gold-plated contact **Specifications:** • Operating Temperature: -40°C - 85°C • Contact Rating (non-switching): 50VDC @ 100mA • Contact Rating (switching): 6VDC @ 100mA or 24VDC @ 25mA • Maximum Contact Resistance: 50mΩ

CHP Series

Features: • High-reliability **Specifications:** • Operating Temperature: -40°C - 85°C • Non-washable • Contact Rating (non-switching): 50VDC @ 100mA • Contact Rating (switching): 6VDC @ 100mA or 24VDC @ 25mA • Maximum Contact Resistance: 50mΩ

CVS Series

Features: • Low profile design of 1.45mm • Fine pitch of 1mm • Easy motion with knob height of 0.2mm **Specifications:** • Operating Temperature: -40°C - 85°C • Non-washable • Contact Rating (non-switching): 50VDC @ 100mA • Contact Rating (switching): 6VDC @ 100mA or 24VDC @ 25mA • Maximum Contact Resistance: 200mΩ

Fig. 1 — CES Series

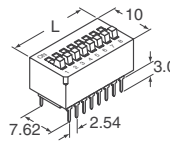


Fig. 2 — CHS Series, J-Lead Type

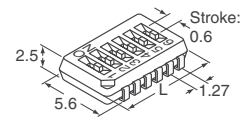


Fig. 3 — CHS Series, Gull Wing Type

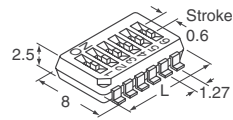


Fig. 4 — CHP Series, J-Lead Type

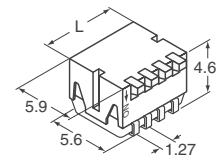


Fig. 5 — CHP Series, Gull Wing Type

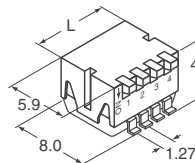


Fig. 6 — CVS Series, Gull Wing Type

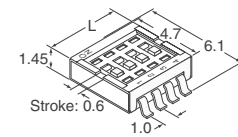


Fig.	No. of Pos.	Dim. L mm	Digi-Key Part No.	Cut Tape Price Each	Tape and Reel ‡	Copal Electronics Part No.				
				1	10	100	Qty.	Pricing		
CES Series, Through-Hole Type										
1	4	12.74	563-1000-5-ND†	2.33	1.40	1.23	—	—	CES-0402MC	
	8	22.9	563-1002-5-ND†	2.85	1.75	1.52	—	—	CES-0802MC	
CHS Series, J-Lead Type - Half Pitch										
2	1	2.5	563-1003-1-ND	1.51	.98	.74	1,000	648.00	CHS-01TA	
	2	4.1	563-1005-1-ND	2.95	1.90	1.44	500	632.00	CHS-02TA	
	4	6.6	563-1007-1-ND	2.43	1.62	1.30	500	607.50	CHS-04TA	
	6	9.2	563-1009-1-ND	3.11	2.08	1.66	500	751.50	CHS-06TA	
	8	11.7	563-1011-1-ND	3.30	2.21	1.77	500	798.50	CHS-08TA	
10	14.3	563-1013-1-ND	3.63	2.42	1.94	500	877.00	CHS-10TA		
	CHS Series, Gull Wing Type - Half Pitch									
3	1	2.5	563-1004-1-ND	1.51	.98	.74	1,000	648.00	CHS-01TB	
	2	4.1	563-1006-1-ND	2.95	1.90	1.44	500	632.00	CHS-02TB	
	4	6.6	563-1008-1-ND	2.72	1.82	1.46	500	680.50	CHS-04TB	
	6	9.2	563-1010-1-ND	3.11	2.08	1.66	500	751.50	CHS-06TB	
	8	11.7	563-1012-1-ND	3.30	2.21	1.77	500	798.50	CHS-08TB	
	10	14.3	563-1014-1-ND	3.63	2.42	1.94	500	877.00	CHS-10TB	
	CHP Series, J-Lead Type - Half Pitch									
	4	2	4.6	563-1015-1-ND	2.95	1.90	1.44	500	632.00	CHP-021TA
8		12.2	563-1019-1-ND	3.30	2.21	1.77	500	798.50	CHP-081TA	
CHP Series, Gull Wing Type										
5	4	7.1	563-1018-1-ND	2.72	1.82	1.46	500	680.50	CHP-041TB	
	8	12.2	563-1020-1-ND	3.30	2.21	1.77	—	—	CHP-081TB	
CVS Series, Gull Wing Type										
6	4	5	563-1041-1-ND	3.56	2.38	1.91	2,000	1634.00/M	CVS-04TB	
	8	9	563-1042-1-ND	4.63	3.09	2.48	2,000	2085.00/M	CVS-08TB	

† Bulk ‡ For Tape and Reel part number, change 1-ND to 2-ND.

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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