



- General purpose relays
- Up to 50A / 240VAC switching
- Good inrush current resistance
- Flat insert connectors - fast-on 6.35mm
- Flange mount or screw mounting
- PCB Version with optional sealing
- Reduced coil power - PCB models



RoHS Compliant ✓

Contacts

Contact arrangement	DPST-NO, DPST-NC, DPDT, 3PST-NO, 3PST-NC, 3PDT
Contact material	AgSnO ₂
Rated load (resistive, cos φ=1)	DC1 28V: 40A / 50A
	AC1 240V: 40A / 50A ; 440V: 20A (UL = 40A/120VAC)
Min. switching current	10mA
Max. braking capacity	AC1 12000VA
Coil resistance	<100mΩ

Coil

Operating range	AC or DC	12-220VAC / 12... 110VDC See tables 1 & 2
Rated power consumption	AC 50Hz: 4VA / 6VA, DC: 2.0W / 2.5W	

Insulation

Insulation resistance	≥500MΩ at 500VDC	
Dielectric strength	coil to contact	2500Vrms 50/60Hz. 1mA/1min
	contact to contact	1500Vrms 50/60Hz 1mA/1min
	between adjacent contacts	1500Vrms 50/60Hz 1mA/1min
Creepage / Clearance	6.5mm / 5.5mm	

General Data

Operate time	max.	25ms
Release time	max.	15ms
Electrical life	Resistive AC1	>1 x 10 ⁵
Mechanical life		1 x 10 ⁷

Environmental

Ambient temperature	operating	-55 to 70°C
	storage	-55 to 80°C
Vibration resistance	endurance	10 ~ 55Hz, 1.0mm D.A.
Shock resistance	endurance	10G (sinusoidal half wave pulse: 11ms)
	damage	100G
Dimensions	L x W x H	various depending on body style (see Fig 2.)
Weight	max.	130g ...155g depending on type

Ordering Code

D B 3 0 - 3 0 2 3 - 2 6 - 1 0 1 2

Series

Contact material

30: AgSnO₂ (max. 40A only)
50: AgSnO₂ (50A max.)

Coil Code:

See tables 1 & 2
(page 2)

Contact configuration

12: DPDT (2C/O)
13: 3PDT (3C/O)
22: DPST-NO (2N/O)
23: 3PST-NO (3N/O)
32: DPST-NC (2N/C)
33: 3PST-NC (3N/C)
52: DPST-NO 3mm*
53: 3PST-NO 3mm*

* 3mm Contact gap 40A only

Mounting & terminations (IP40)

2: M4 Threaded bush base
3: Sealed (PCB type only - consult factory) - IP67
4: Side mount flanges
5: No mounting (for PCB or plug in sockets)
9: Top mounting flanges

Connection mode

5: PCB (use cover styles 3 & 5 only)
6: 6.35 x 0.8mm "fast-on" blade terminals

DC Coil Data Table 1

Coil code	Nominal voltage (VDC)	Must operate voltage max. (VDC)	Max. allowable voltage (VDC)	Must release voltage min. (VDC)	Coil resistance $\Omega \pm 10\%$	
					Cover 3 & 5 (2W)	Cover 2,4 & 9 (2.5W)
1012	12	9.0	13.2	1.2	72.0	57.6
1024	24	18.0	26.4	2.4	288.0	230.4
1048	48	36.0	52.8	4.8	1152.0	921.6
1110	110	82.5	121.0	11.0	6050.0	4840.0

All parameters at 20°C

AC Coil Data 50/60Hz Table 2

Coil code	Nominal voltage (VAC)	Must operate voltage max. (VAC)	Max. allowable voltage (VAC)	Must release voltage min. (VAC)	Coil resistance $\Omega \pm 10\%$	
					Cover 3 & 5 (4VA)	Cover 2,4 & 9 (6VA)
5012	12	9.60	13.2	3.6	12.6	8.4
5024	24	19.2	26.4	7.2	50.0	33.6
5048	48	38.4	52.8	14.4	202.0	134.4
5110	110	88.0	121.0	33.0	1059.0	706.0
5220	230	176.0	253.0	66.0	4727.00	2820.0

All parameters at 20°C

