FEATURES

- samll size,light weight
- Switching capacity up to 20A (at 85℃)
- High resistance to vibration and shock
- Outline dimensions: 15.5×12.2×13.6mm

CHARACTERISTICS

Contact arrangement	(1A)(1B)(1C)
Voltage drop (initial)[1)]	Typ:100mV(at 10A)
	Max.:250mV(at 10A)
Max.carrying current(NO contact)	35A/min 25A/h[2)]
Max.switching current	NO/NC:35/20A(at 16VDC)
Max.switching voltage	60VDC
Max.switching power	280W
Contact rating	Resistive:20A 14VDC
	Motor locked:20A 14VDC
	Motor free: Break:4A 14VDC Shock:20A 14VDC
Min.contact load	1A 16VDC
Electrical life	1×10^5 ops
Mechanical life	1×10^7 ops 300ops/min
Initial insulation resistance	100MΩ (100VDC)
Dielectric strength	500VAC (1min)
	500VAC (1min,leakage current less than 1mA)
Operate time	Max:10ms
Release time	Max:5ms
Ambient temperature	-40℃~+85℃
Storage temperature	-40℃~+85℃
Vibration resistance	10Hz~55Hz 1.5mm
	10Hz to 55Hz 1.5mmDA
Shock resistance	Functional:100m/s^2 (10g)
	Destructive:1000m/s^2 (100g)
Termination	PCB
Construction	Sealed , Flux proofed
Unit weight	Approx:6g

1)Equivalent to the max,initial contact resistance is 100mΩ(1A 24VDC);
2)25℃,measured when coil is energized with 100% nominal voltage;

COIL DATA

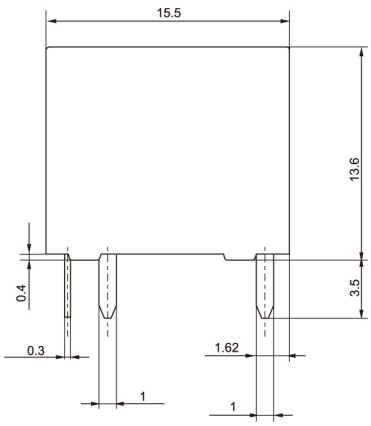
at 23℃

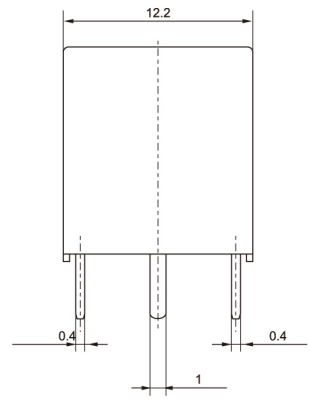
Normal voltage (VDC)	Pick-up voltage (VDC)		Drop-out voltage (VDC)	Coil resistance (Ω±10%)	Power consumption (W)
	20℃	85℃			
6	3.6	4.5	0.5	60	0.6
9	5.4	6.8	0.7	135	0.6
12	7.3	9.0	1.0	240	0.6
18	10.8	13.5	1.5	540	0.6
6	3.6	4.5	0.5	45	0.8
9	5.4	6.8	0.7	100	0.8
12	7.3	9.0	1.0	180	0.8
18	10.8	13.5	1.6	405	0.8
24	14.4	18.0	2.2	720	0.8

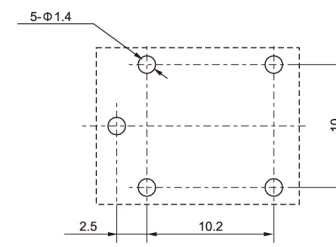
ORDERING INFORMATION

	MAD	-S-	1	12	-C
Type					
Contruction	S-seeled nil-Fluxproof				
Contact group	1：1group				
Coil voltage	6, 9, 12, 18, 24VDC				
Contact form	A-NO B-NC C-NO/NC				

EXTERNAL DIMENSIONS

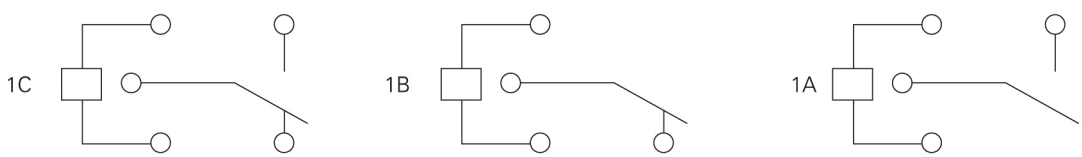






PCB Layout

WIRING DIAGRAM



Remark:1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.