



Unenclosed
24×19×20



Wash tight
26.8×21.5×22.3

Features

- Small size, heavy contact load, capable of standing strong current of 70A at 14VDC.
- PC board mounting.
- Suitable for automatic control facilities and automobile application etc.
- Both European 11mm pole distance and American 8mm pole distance available.

Ordering Information

4120 - C - S 30 DC12V 1.6 U
1 2 3 4 5 6 7

1 Part number: 4120
2 Contact arrangement: A:1A; B:1B; C:1C
3 Enclosure: S:Wash tight; Z:Flux proof
O:Unenclosed

4 Contact rating: 30:30A; 40:40A; 45:45A; 60:60A; 70:70A
5 Coil rated voltage(V): DC: 6,9,12,18,24
6 Coil power: 1.6:1.6W; 1.9:1.9W; 2.3:2.3W; 2.5:2.5W
7 Terminal distance type: U:USA; E:European

Contact Data

Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))		
Contact Material	AgSnO ₂ AgNi		
Contact Rating	1A: 40A,45A/14VDC 60A/14VDC(85℃)(Unenclosed),70A/14VDC(Unenclosed) 1B: 30A/14VDC; 1C: NO:40A/14VDC;NC:30A/14VDC;20A/120VAC,15A/28VDC		
Max. Switching Power	980W 2400VA		
Max. Switching Voltage	75VDC 277VAC		
Max. Switching Current	Make:100A(Lamp,Inrush current) Break:80A(Resistive)		
Voltage Drop(Initial)	Typ.: 50mV(at 10A)	Item 4.12 of IEC 61810-7	
Electrical Endurance	5×10 ⁴ (70A/14VDC 85℃) 1×10 ⁵ (60A/14VDC 85℃) 1×10 ⁵	Item 4.30 of IEC 61810-7	
Mechanical Endurance	1×10 ⁷	Item 4.31 of IEC 61810-7	

Notes: For the open type relays, the min. contact switching is 100mA/6VDC.

Coil Parameter

Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max)	Drop-out voltage VDC(min) (10% of rated voltage)	Coil power W	Operate time ms	Release time ms
Rated	Max.						
12	15.6	90	6.90	1.2	1.6	≤7	≤5
18	23.4	202.5	12.6	1.8			
24	31.2	360	14.1	2.4			
6	7.8	19	4.20	0.6	1.9	≤7	≤5
9	11.7	42.6	6.30	0.9			
12	15.6	64	6.90	1.2	2.3	≤4	≤3
24	31.2	234	14.1	2.4	2.5		

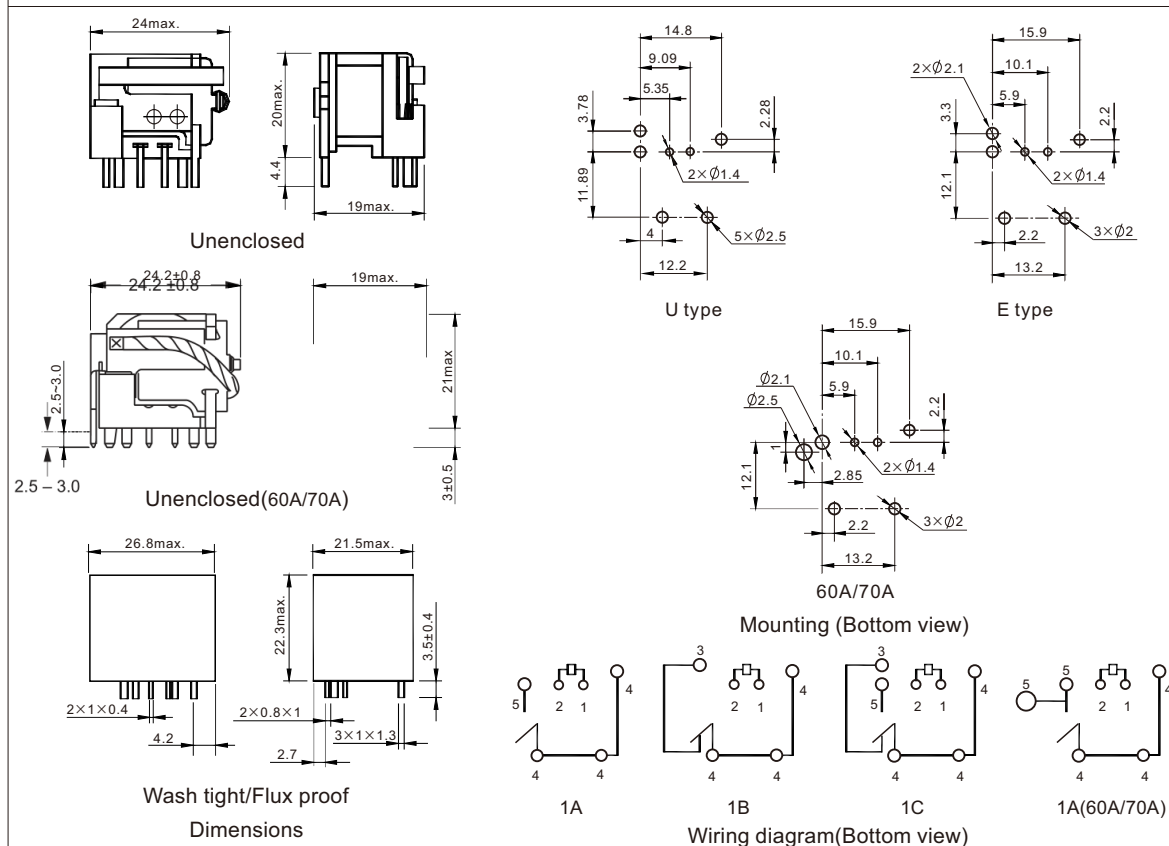
Notes: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pick-up and drop-out voltage are for test purposes only and are not to be used as design criteria.

Characteristics

Insulation Resistance	100MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength		
Between Open Contacts	500VAC 1min	Item 4.9 of IEC 61810-7
Between Contact and Coil	750VAC 1min	
Shock Resistance	196m/s ² 11ms	Item 4.26 of IEC 61810-7
Vibration Resistance	10Hz~40Hz Double amplitude 1.27mm	Item 4.28 of IEC 61810-7
Terminals Strength	10N	Item 4.24 of IEC 61810-7
Ambient Temperature	-40℃~125℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Weight (Approx.)	17.8g(70A) 19g(Unenclosed) 21g	Item 4.7 of IEC 61810-7

Dimensions

mm



Remark: 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.

Reference Data

