



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 current: 30:30A; 40:40A; 45:45A; 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 <sub>2</sub> AgNi	
Contact Rating	1A: 40A,45A/14VDC 70A/14VDC(85°C)(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	3×10 <sup>4</sup> (70A/14VDC 85°C) 1×10 <sup>5</sup>	Item 4.30 of IEC 61810-7
Mechanical Endurance	1×10 <sup>7</sup>	Item 4.31 of IEC 61810-7

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

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max) (70%of rated voltage )	Drop-out voltage VDC(min) (10% of rated voltage)	Coil power W	Operate time ms	Release time ms
	Rated	Max.						
012-1600	12	15.6	90	8.40	1.2	1.6	≤7	≤5
018-1600	18	23.4	202.5	12.6	1.8			
024-1600	24	31.2	360	16.8	2.4			
006-1900	6	7.8	19	4.20	0.6	1.9	≤7	≤5
009-1900	9	11.7	42.6	6.30	0.9			
012-1600	12	15.6	64	6.90	1.2	2.3	≤4	≤3
024-1600	24	31.2	234	14.1	2.4			

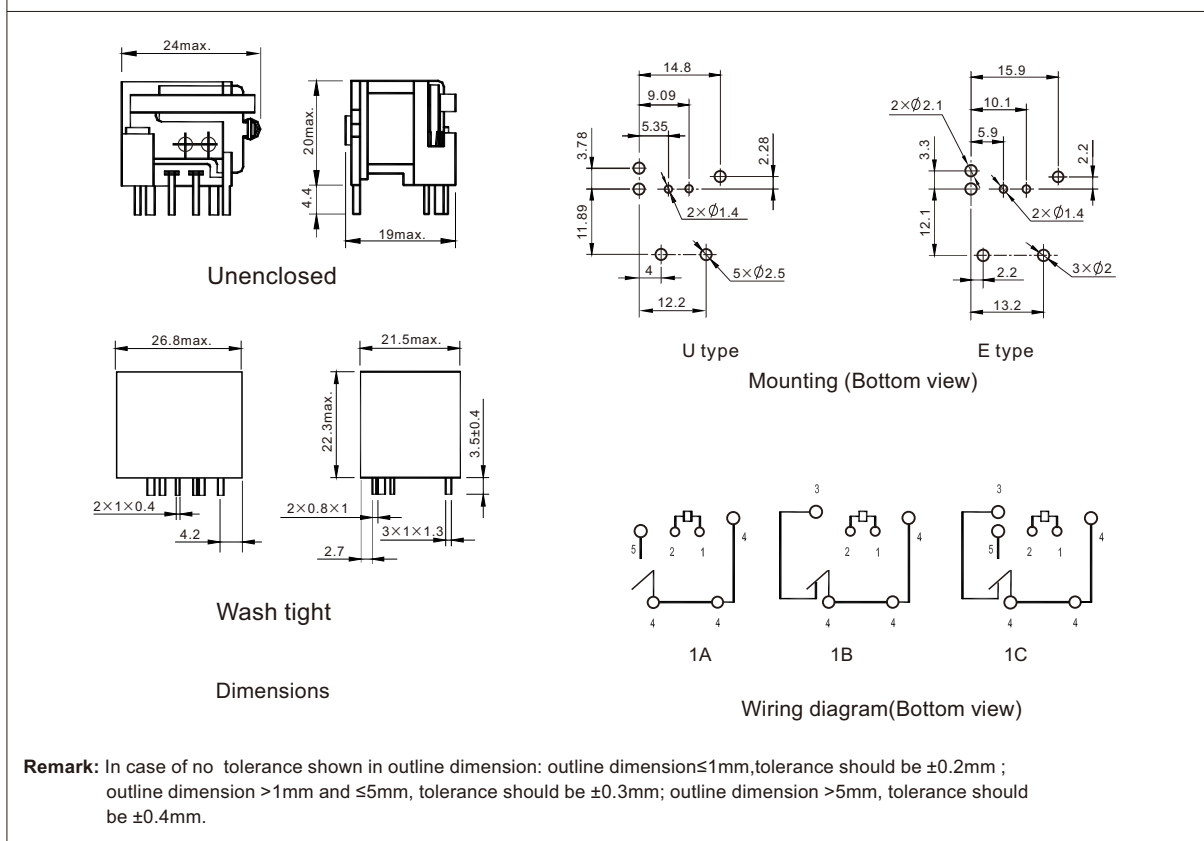
- Notes:** 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
 2. Pick-up and drop-out voltage are for test purposes only and are not to be used as design criteria.

## Characteristics

Insulation Resistance	100MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Contacts Between Contact and Coil	500VAC 1min 750VAC 1min	Item 4.9 of IEC 61810-7
Shock Resistance	196m/s <sup>2</sup> 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.)	19g (Unenclosed) 21g	Item 4.7 of IEC 61810-7

## Dimensions

mm



## Reference Data

