

# 4120



Unenclosed  
24×19×20



Wash tight  
26.8×21.5×22.3

## Features

- Small size, heavy contact load, capable of standing strong current of 45A 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  
 5 Coil rated voltage(V): DC:6,9,12,18,24  
 6 Coil power : 1.6:1.6W; 1.9:1.9W  
 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(Resistive)	1A: 40A,45A/14VDC;1B:30A/14VDC; 1C:NO:40A/14VDC;NC:30A/14VDC;20A/120VAC,15A/28VDC	
Max. Switching Power	630W 2400VA	
Max. Switching Voltage	75VDC 277VAC	
Max. Switching Current	Make:100A(Lamp,Inrush current) Break:60A(Resistive)	
Voltage Drop(Initial)	Typ. 50mV(at 10A) Item 4.12 of IEC 61810-7	
Operation	Electrical	1×10 <sup>7</sup> Item 4.30 of IEC 61810-7
Life	Mechanical	1×10 <sup>7</sup> Item 4.31 of IEC 61810-7

**CAUTION:** 1.For the intermediate current, it only applies to the room temperature.  
 2.For the open type relays, the min. Switching current and min. Switching voltage is 100mA/6VDC.

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance ± 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.						
006-1900	6	7.8	19	4.20	0.6	1.9	≤5	≤3
009-1900	9	11.7	42.6	6.30	0.9			
012-1600	12	15.6	90	8.40	1.2	1.6	≤5	≤3
018-1600	18	23.4	202.5	12.6	1.8			
024-1600	24	31.2	360	16.8	2.4			

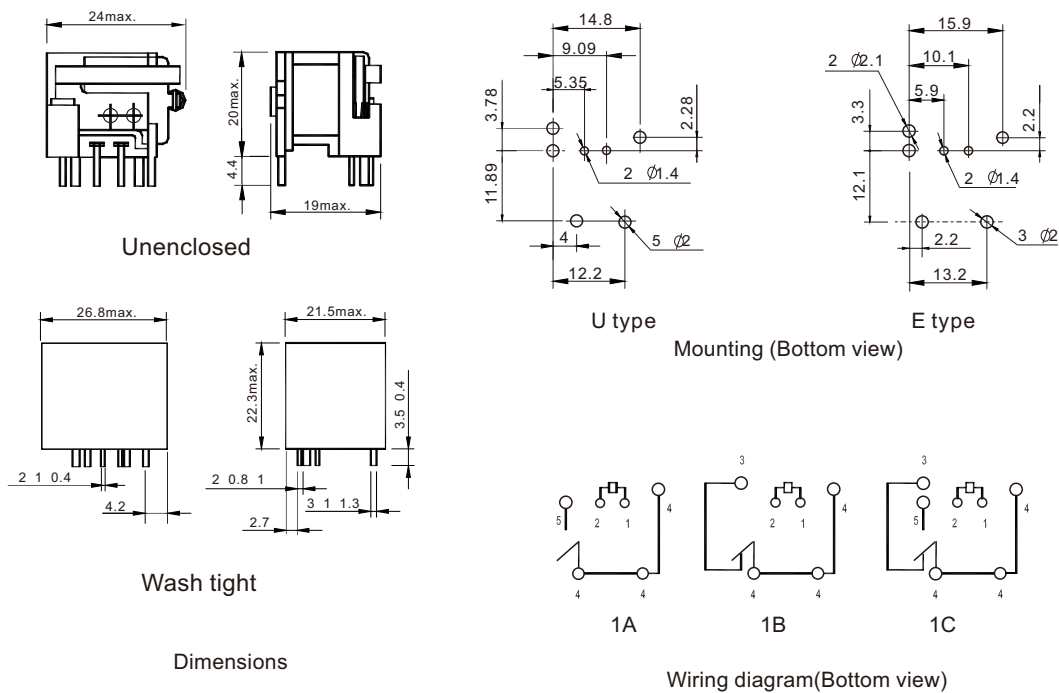
**CAUTION:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
 2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

## Characteristics

Insulation Resistance	100M $\Omega$ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Contacts Between Contact and Coil	50Hz 500V 50Hz 750V	Item 4.9 of IEC 61810-7 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 $^{\circ}$ C~125 $^{\circ}$ C	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Mass	19g (Unenclosed) 21g	Item 4.7 of IEC 61810-7

## Dimensions

mm



**CAUTION:** 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

