



32.4×27.5×28

NT90T (50A)

UL US E160644

Features

- 50A contact switching capability.
- Available for DC coil 0.9W and 1.5W. 2.7VA available for AC coil.
- PC board mounting and QC terminals.
- Suitable for automobile, machine, electronic equipment, air conditioner and household appliances applications.

Ordering Information

NT90T	50	A	S	24	S	F	.9
1	2	3	4	5	6	7	8
1 Part number: NT90T				5 Coil rated voltage(V): DC:5,6,9,12,15,18,24,48 AC:24,110,220,240,277			
2 Contact rating: 50:50A				6 Contact material: S:AgSnO ₂			
3 Contact arrangement: A:1A; B:1B; C:1C				7 Insulation standard: F:155℃			
4 Enclosure: S:Wash tight; E:Flux proof				8 Coil power: .9:0.9W; Nil:1.5W,2.7VA			

Contact Data

Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))		
Contact Material	AgSnO ₂		
Contact Rating ¹⁾	NO:50A/240VAC; NC:35A/240VAC; NO:35A/30VDC; NC:25A/30VDC Motor load: 2HP 250VAC TV-8		
Max. Switching Power	1050W 12000VA		
Max. Switching Voltage	30VDC 280VAC		Max. Switching Current:50A
Contact Resistance	≤30mΩ		Item 4.12 of IEC 61810-7
Electrical Endurance	3×10 ⁴ (50A/277VAC,Resistive load,40℃,1s on 9s off) 6×10 ³ (50A/277VAC,Resistive load,85℃,1s on 9s off) 3×10 ⁴ (35A/277VAC,Resistive load,40℃,1s on 9s off) 2.5×10 ⁴ (TV-8)		Item 4.30 of IEC 61810-7
Mechanical Endurance	1×10 ⁷		Item 4.31 of IEC 61810-7

Notes: 1)The vent hole should be opened when testing enclosed relay.

Coil Parameter

DC Coil Parameter							
Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max) (75%of rated voltage)	Drop-out voltage VDC(min) (10%of rated voltage)	Coil power W	Operate time ms	Release time ms
Rated	Max.						
5	6.5	28	3.75	0.5	0.9	≤15	≤10
6	7.8	40	4.50	0.6			
9	11.7	90	6.75	0.9			
12	15.6	160	9.00	1.2			
15	19.5	250	11.25	1.5			
18	23.4	360	13.50	1.8			
24	31.2	640	18.00	2.4			
48	62.4	2560	36.00	4.8	1.5	≤15	≤10
5	6.5	16.7	3.75	0.5			
6	7.8	24	4.50	0.6			
9	11.7	54	6.75	0.9			
12	15.6	96	9.00	1.2			
15	19.5	150	11.25	1.5			
18	23.4	216	13.50	1.8			
24	31.2	384	18.00	2.4			
48	62.4	1536	36.00	4.8			

Notes: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

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Coil Parameter

AC Coil Parameter								
Coil voltage VAC		Rated current mA	Coil resistance $\Omega \pm 10\%$	Pick-up voltage VAC(max) (75%of rated voltage)	Drop-out voltage VAC(min) (10%of rated voltage)	Coil power VA	Operate time ms	Release time ms
Rated	Max.							
24	28.8	112.5	96	18	7.2	2.7	—	—
110	132	22.5	2320	82.5	33			
220	264	12.3	9500	165	66			
240	288	11.3	11600	180	72			
277	332	9.7	15600	208	83			

Characteristics

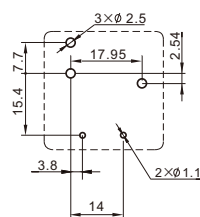
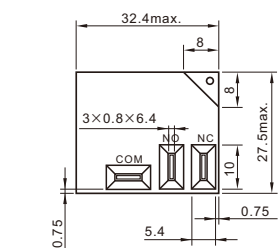
Insulation Resistance	1000MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Open Contacts Between Contact and Coil	1500VAC 1min 2500VAC 1min	Item 4.9 of IEC 61810-7
Shock Resistance	Functional: 98m/s ² 11ms	Item 4.26 of IEC 61810-7
	Destructive: 980m/s ² 11ms	Item 4.26 of IEC 61810-7
Vibration Resistance	10Hz~55Hz Double amplitude 1.5mm	Item 4.28 of IEC 61810-7
Terminals Strength	10N	Item 4.24 of IEC 61810-7
Ambient Temperature	-55℃~85℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Weight (Approx.)	35g	Item 4.7 of IEC 61810-7

Safety Approvals

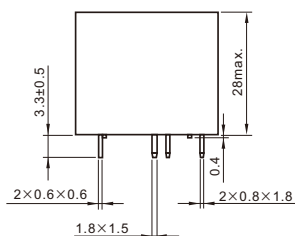
Safety approval	UL&CUR
Load	NO:50A/240VAC,277VAC 85℃ NC:35A/240VAC,277VAC 40℃

Dimensions

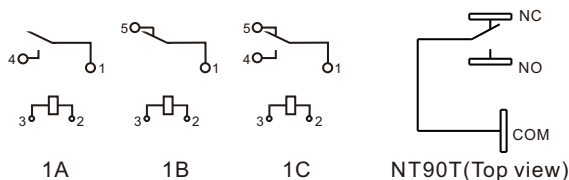
mm



Mounting(Bottom view)



Dimensions



Wiring diagram(Bottom view)

Remark: In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$;
outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should
be $\pm 0.4\text{mm}$.