

» Features

- 1 form A (NO) or 1 form C (CO) contact
- 30A, 40A or 50A switching capability
- Single or dual coil latching relay
- 0,9W (30A/40A) or 1,5W (50A) single coil power
- 2x 1,8W (30A/40A) or 2x 3W (50A) dual coil power



H x W x D: 20,5 x 27,6 x 32,5 [mm]

» Application Examples

- Industrial control
- Power supplies
- Systems critical to low energy consumption

» Ordering Information

NF90L - **100** **E** **50** **12** **S** **V**
1 **2** **3** **4** **5** **6** **7**

- | | | | |
|---------------------------|--|---------------------|---|
| 1. Type: | NF90L = Latching | 5. DC Coil voltage: | 05 = 5V; 12 = 12V;
24 = 24V; 48 = 48V |
| 2. Contact configuration: | 100 = 1NO (1 form A)
001 = 1CO (1 form C) | 6. Coil Power: | S = Single Coil (0,9W/1,5W)
D = Dual Coil (2x 1,8W/3W) |
| 3. Contact material: | E = AgSnO ₂ | 7. Protection: | V = Vented (flux-tight)
S = Sealed (washable) |
| 4. Contact rating: | 30 = 30A
40 = 40A
50 = 50A | | |

» Contact Data

Contact Arrangement	1 form A (NO) or 1 form C (CO)
Contact Material	AgSnO ₂
Contact Rating (Resistive Load)	30A, 277VAC 40A, 277VAC 50A, 277VAC
Max. Switching Voltage	440VAC
Max. Switching Current	30A/40A/50A
Max. Switching Power	11kVA/14kVA
Initial Contact Resistance	≤20mΩ (voltage drop)
Electrical Endurance	50 x 10 ³
Mechanical Endurance	1 x 10 ⁶

» Coil Rating

Rated Coil Voltage [VDC]	Nominal Current [mA]	Coil Resistance [Ω] \pm 10%	Max. Pull-in Voltage [VDC]	Min. Drop-out Voltage [VDC]	Coil Power [mW]	Comment
5	180,0	28	4,00	4,00	900	Single Coil (\leq 40A)
12	75,0	160	9,60	9,60	900	Single Coil (\leq 40A)
24	37,5	640	19,20	19,20	900	Single Coil (\leq 40A)
48	18,8	2560	38,40	38,40	900	Single Coil (\leq 40A)
5	300,0	17	4,00	4,00	1500	Single Coil (50A)
12	125,0	96	9,60	9,60	1500	Single Coil (50A)
24	62,5	384	19,20	19,20	1500	Single Coil (50A)
48	31,3	1536	38,40	38,40	1500	Single Coil (50A)
5	360,0	14	4,00	4,00	1800	Dual Coil (\leq 40A, per each coil)
12	150,0	80	9,60	9,60	1800	Dual Coil (\leq 40A, per each coil)
24	75,0	320	19,20	19,20	1800	Dual Coil (\leq 40A, per each coil)
48	37,5	1280	38,40	38,40	1800	Dual Coil (\leq 40A, per each coil)
5	600,0	8	4,00	4,00	3000	Dual Coil (50A, per each coil)
12	250,0	48	9,60	9,60	3000	Dual Coil (50A, per each coil)
24	125,0	192	19,20	19,20	3000	Dual Coil (50A, per each coil)
48	62,5	768	38,40	38,40	3000	Dual Coil (50A, per each coil)

» Specification

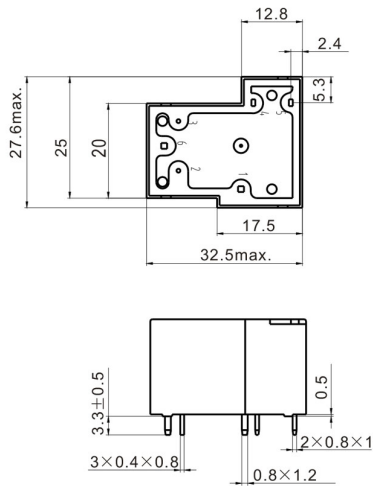
Insulation resistance	\geq 1000M Ω (at 500VDC)
Creepage / Clearance Distance	8,4mm / -
Initial Dielectric Strength	between open contact: 1500Vrms, 50/60Hz for 1 min between contact & coil: 2500Vrms, 50/60Hz for 1 min
Operate Time / Release Time	\leq 15ms / \leq 15ms (at nominal voltage)
Environmental Protection	RTII (flux-tight) or RTIII (washable)
Shock Resistance	Destruction: 196m/s ² (11ms)
Vibration Resistance	Destruction: 10 ~ 55Hz, 1,5mm double amplitude
Ambient Operating Temperature (without icing or condensation)	-40 ~ +85°C
Ambient Operating Humidity	5% ~ 85% RH
Weight	28g/31g

» Safety Approvals

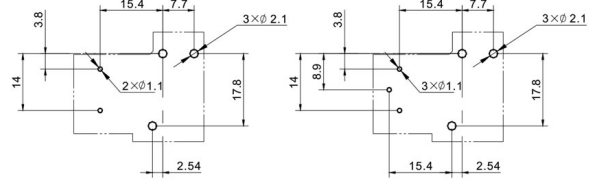
Approval	File No.	Rating(s)
UL	pending	50A @ 277VAC 40A @ 277VAC 30A @ 277VAC
CQC	pending	50A @ 277VAC 40A @ 277VAC 30A @ 277VAC

» Dimensions

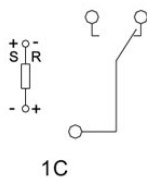
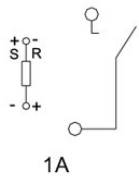
Outline Dimensions



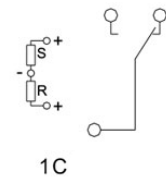
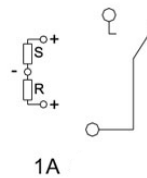
PCB Layout (Bottom View)



Wiring Diagram Single Coil (Bottom View)



Wiring Diagram Dual Coil (Bottom View)



Remark: 1) The reference tolerance in outline dimension: outline dimension $\leq 1\text{mm}$, reference tolerance is $\pm 0.2\text{mm}$;
outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, reference tolerance is $\pm 0.3\text{mm}$;
outline dimension $> 5\text{mm}$, reference tolerance is $\pm 0.5\text{mm}$.
2) The reference tolerance for PC Board layout is $\pm 0.1\text{mm}$.

Disclaimer

All technical performance data apply to the relay as such, specific conditions of the individual application are not considered. Please always check the suitability of the relay for your intended purpose. We do not assume any responsibility or liability for not complying herewith. Any responsibility for the application of the product remains with the customer only. All specified values apply at room temperature, unless otherwise stated. All specifications are subject to change without notification. All rights are reserved.