

### » Features

- 1 Pole, 12A to 20A, 1NO (1A) or 1CO (1C) , 5mm pinning
- DC Coil Power: 400 mW (single coil) or 600mW (dual coil)
- Halogen-Free type available
- Ambient temperature 85°C
- Accordance to IEC60335-1 Ed. 5 (GWT)

### » Application Examples

- Appliances
- Power Supplies
- Industrial Control

### » Ordering Information

<b>NF75L</b>	<b>100</b>	<b>E</b>	<b>20</b>	<b>12</b>	<b>S</b>	<b>V</b>	<b>Nil</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1. Type:	NF75L = Latching			6. Coil power:	S = Single Coil 400mW D = Dual Coil 600mW		
2. Contact configuration:	100 = 1NO (1 form A) 001 = 1CO (1 form C)			7. Protection:	V = Vented (Flux-tight, RTII) S = Sealed (Washable, RTIII)		
3. Contact material:	E = AgSnO <sub>2</sub>			8. Special:	Nil = Standard (incl. IEC60335-1 GWT) ZHAL = Zero Halogen - Halogen Free Type		
4. Contact rating:	20 = 20A						
5. DC Coil voltage:	3 = 3V; 5 = 5V; 6 = 6V 9 = 9V; 12 = 12V; 18 = 18V 24 = 24V; 36 = 36V; 48 = 48V						

### » Contact Data

Contact Arrangement	1 form C (CO) or 1 form A (NO)
Contact Material	AgSnO <sub>2</sub>
Contact Rating (Resistive Load)	NO: 20A, 277VAC; 1HP, 240VAC; TV-8, 240VAC Tungsten 1500W, 120VAC; Tungsten 3000W, 240VAC Electronic Ballast 8A, 277VAC; EM Ballast 3.7A, 480VAC NC: 5A, 277VAC
Max. Switching Voltage	277VAC
Max. Switching Current	NO: 20A; NC: 5A
Max. switching power	NO: 5540VA; NC:1385VA
Min. Switching Capacity	100mA, 5VDC
Contact Resistance	≤ 100mΩ (initial)
Electrical endurance	NO: 12A, 277VAC, 85°C, 100 x 10 <sup>3</sup> ; 17A, 277VAC, 85°C, 50 x 10 <sup>3</sup> ; 20A, 277VAC, 85°C, 30 x 10 <sup>3</sup> ; NC: 5A, 277VAC, 85°C, 50 x 10 <sup>3</sup>
Mechanical endurance	1 x 10 <sup>6</sup>

Pending



29.3 x 12.7 x 15.3 [mm]



## » Coil Rating

Single Coil Type					
Rated Coil Voltage [VDC]	Nominal Current [mA]	Coil Resistance R[Ω] ± 10%	Pull-in Voltage [VDC]	Drop-out Voltage [VDC]	Coil Power [mW]
3	133.3	22.5	2.25	2.25	400W
5	80	62.5	3.75	3.75	
6	66.7	90	4.5	4.5	
9	44.4	202.5	6.75	6.75	
12	33.3	360	9	9	
18	22.2	810	13.5	13.5	
24	16.7	1440	18	18	
36	11.1	3240	27	27	
48	8.3	5760	36	36	

Dual Coil Type					
Rated Coil Voltage [VDC]	Nominal Current [mA]	Coil Resistance R[Ω] ± 10%	Pull-in Voltage [VDC]	Drop-out Voltage [VDC]	Coil Power [mW]
3	200	15	2.25	2.25	600W
5	120	41.7	3.75	3.75	
6	100	60	4.5	4.5	
9	66.7	135	6.75	6.75	
12	50	240	9	9	
18	33.3	540	13.5	13.5	
24	25	960	18	18	
36	16.7	2160	27	27	
48	12.5	3840	36	36	

The data shown in Coil Rating tables are initial values

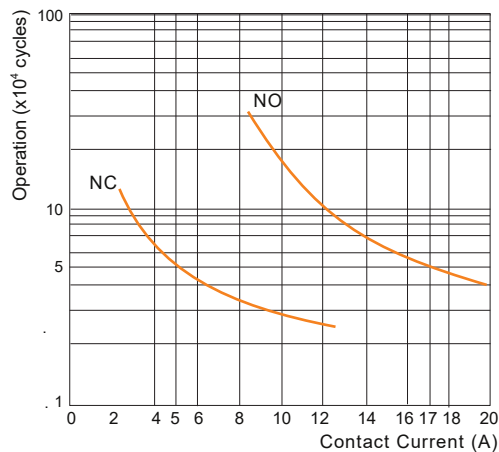
## » Specification

Initial Dielectric Strength	between open contacts 1000VAC, 50/60 Hz for 1 min between contact and coil 5000VAC, 50/60 Hz for 1 min
Insulation resistance	1000 MΩ, min. (@ 500VDC)
Impulse withstand voltage	10kV (1.2 x 50 μs)
Environmental Protection	RTII (Vented, Flux tight) / RTIII (Sealed, Washable)
Operate Time / Release Time	Max. 15ms / Max. 15ms (@ nominal voltage)
Operate Voltage / Release Voltage	Max. 75% of nominal voltage
Vibration Resistance (Malfunction)	10 to 55Hz, 1.5mm double amplitude
Shock Resistance	Malfunction: 100m/s <sup>2</sup> ; Destruction: 1000m/s <sup>2</sup>
Ambient Operating Temperature <sup>1)</sup>	-40 to +85°C
Ambient Operating Humidity <sup>1)</sup>	20% to 85%
Pulse Duration	50ms min.
Weight	Approx. 14g
Packing Unit	50pcs / tray; 500pcs / box

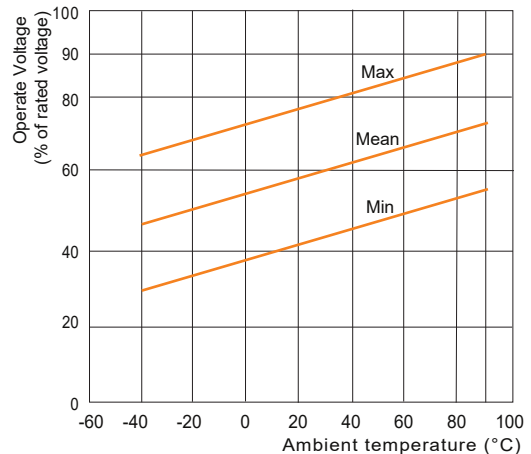
1) Without icing or condensation

## » Engineering Data

### Electrical Endurance



### Ambient Temperature vs. Operate/Release Voltages



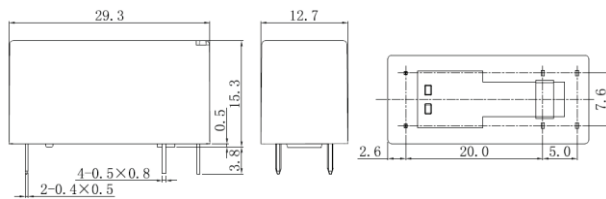
## » Safety approvals (PENDING)

Model	File No.	File No.
UL	PENDING	NO: 20A, 277VAC, 85°C, 30k cycles; 17A, 277VAC, 85°C, 50k cycles; 12A, 277VAC, 85°C, 100k cycles; Tungsten 3000W, 240VAC, 40°C, 10k cycles; TV-8, 240VAC, 40°C, 25k cycles; NC: 5A, 277VAC, 85°C, 50k cycles
CQC	PENDING	NO: 20A, 277VAC, 85°C, 30k cycles 17A, 277VAC, 85°C, 50k cycles; NC: 5A, 277VAC, 85°C, 50k cycles
TÜV	PENDING	NO: 20A, 277VAC, 85°C, 10k cycles; 17A, 277VAC, 85°C, 10k cycles; NC: 5A, 277VAC, 85°C, 10k cycles

## » Dimensions

### Single Coil Type

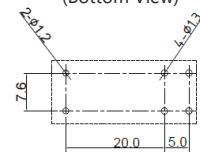
1 NO (1 form A)



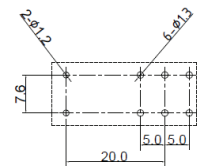
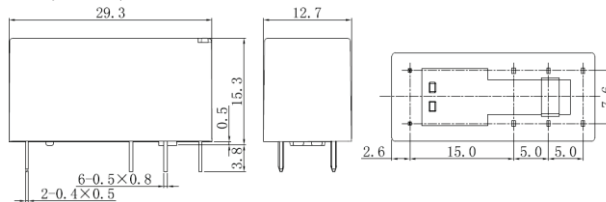
Wiring Diagram  
(Bottom View)



PCB Mounting Holes  
(Bottom View)

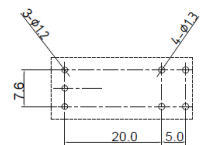
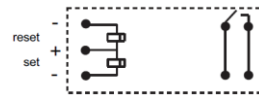
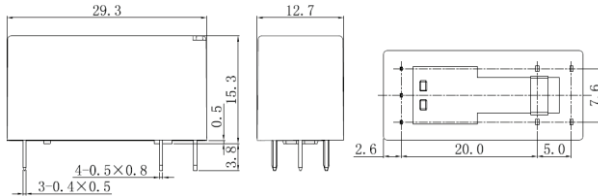


1 NC (1 form C)

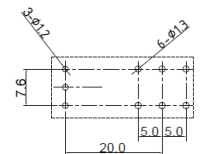
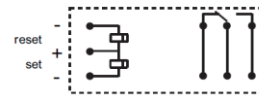
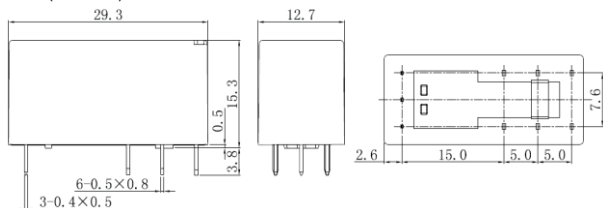


### Dual Coil Type

1 NO (1 form A)



1 NC (1 form C)



### 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. We recommend to complete our questionnaire and to request our technical service. 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 of NF Forward GmbH & NF Forward USA Inc. are reserved.