



20,3 x 7 x 14,7

RoHS compliant

c us E90631

40046131

WR10

Features	Application Examples
<ul style="list-style-type: none">• 5A switching capacity• 7mm width relay• High sensitivity coil: 200mW• UL insulation system: class F• Accordance with IEC60335-1 Ed. 5	<ul style="list-style-type: none">• Household electrical appliances• Refrigerators, air conditioners• Small electric applications

Ordering Information							
<u>WR10</u>	<u>100</u>	<u>E</u>	<u>24</u>	<u>S</u>	<u>P</u>	<u>L</u>	<u>XXXX</u>
1	2	3	4	5	6	7	8
1. Type:		WR10		6. Material:		Nil = CTI ≥ 250 P = CTI ≥ 175	
2. Contact configuration:		100 = 1NO (1 form A)		7. Contact rating:		Nil = 5A L = 3A	
3. Contact material:		E = Ag alloy		7. Special code:		XXXX = Letters and / or number for special customer design	
4. Coil voltage:		5 = 5VDC; 9 = 9VDC; 12 = 12VDC; 24 = 24VDC;					
5. Protection:		Nil = Flux tight S = Sealed washable					

Contact Data

Contact Arrangement	1 form A (1NO)
Contact Material	Ag alloy (Cd free)
Contact Rating	5A, 250VAC by 85°C
Max. Switching Voltage	250VAC
Max. Switching Current	5A
Min. Switching Capacity	100mA, 5VDC
Contact Resistance	≤ 100mΩ (by voltage drop 6VDC/1A)
Electrical endurance	10 ⁵
Mechanical endurance	10 ⁶

Coil Rating (at 23°C)

Rated Coil Voltage [VDC]	Coil Resistance R[Ω] ± 10%	Pull-in Voltage [VDC]	Drop-out Voltage [VDC]	Coil Power [mW]	Max. Applied Voltage [VDC]
5	125	Max.75% of nominal voltage (Initial)	Min.5% of nominal voltage (Initial)	200	Max.110% of nominal voltage (Initial)
9	405				
12	720				
24	2880				

Specification

Creepage / Clearance Distance	Min. 7,4mm / Min. 7,4mm
Initial Dielectric Strength	between open contacts 750Vrms, 50/60Hz for 1 min
	between contact and coil 4000Vrms, 50/60Hz for 1 min
Impulse withstand voltage	between contact and coil 5kV (1.2 x 50 μs)
Material Group of Insulation Parts	IIIa
Over Voltage Category	II
Tracking Index	CTI 175V min for P material; CTI 250V min. for standard material;



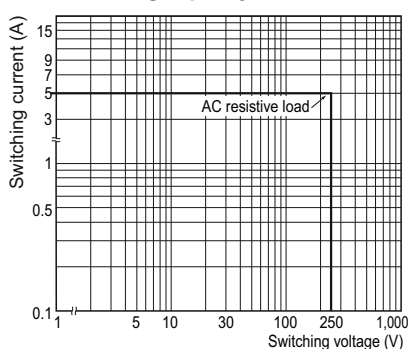
Specification (continued)

Glow wire according to IEC60335-1	GWFI 850°C and GWIT 775°C
Environmental Protection	RTII (Flux tight) / RTIII (Sealed)
Operate Time / Release Time	Max. 20ms / Max. 10ms
Frequency of Operation	360/ hour (With load)
	18000 / hour (Without load)
Vibration Resistance (Malfunction)	10 to 55 to 10 Hz, 1.5mm double amplitude
Shock Resistance (Malfunction)	Energized 98m/s ² , De-energized 98m/s ²
Ambient Operating Temperature* ¹	-40 to +85°C
Ambient Operating Humidity* ¹	20% to 85%
Weight	Approx. 3g
Packing Unit	20 pcs / tube; 1000 pcs / box;

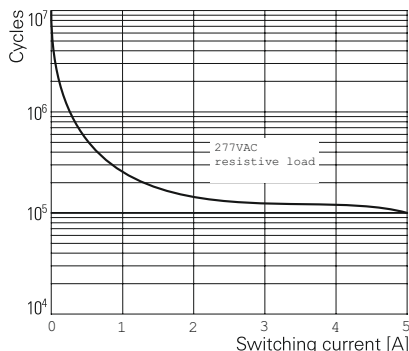
*1. Without icing or condensation

Engineering Data

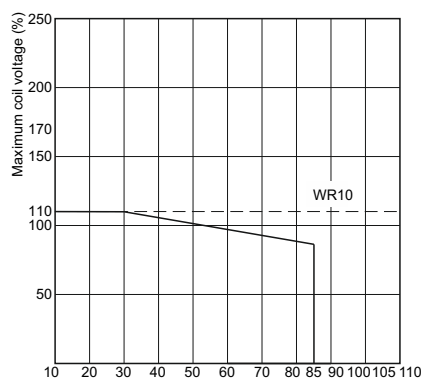
Max. switching capacity



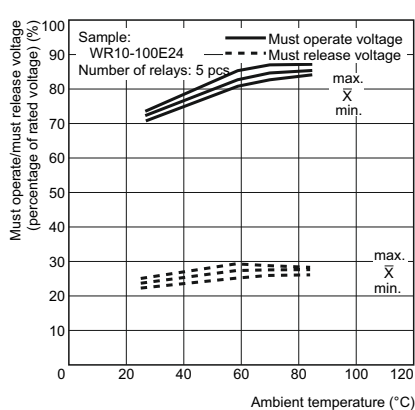
Electrical Endurance



Ambient Temperature vs. Maximum Coil Voltage



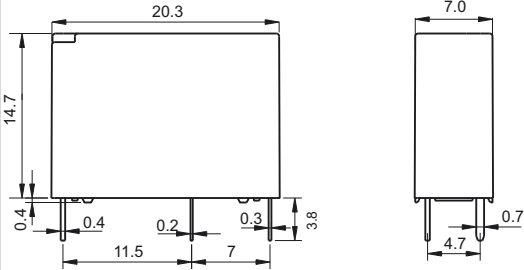
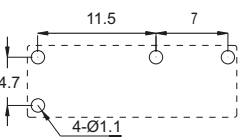
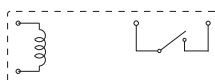
Ambient Temperature vs. Must Operate and Must Release Voltages



Note: The max. coil voltage refers to the max. value in a varying range of operating power voltage, not a continuous voltage.

Safety approvals (Pending)

Approvals	VDE File No. 40046131	UL File No. E90631	
WR10	5A, 250VAC, 85°C, 100k ops.	5A, 250VAC, 85°C, 100k ops.	

Dimensions	mm
<p>WR10 001E...</p> 	<p>PCB Mounting Holes (Bottom View) Tolerance: $\pm 0,3\text{mm}$</p>  <p>Wiring Diagram</p> 

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 specifications are subject to change without notification. All rights of NF Forward GmbH & NF Forward USA Inc. are reserved.