

# HRS1

 SIGNAL RELAY

## Safety Approval

 US No. E164730  No. CQC12002086133  
 No. 50103498

## Features

- Microminiature relay
- Dimensions: 15.6×10.6×11.8 (mm)
- High sensitivity
- Contact: 1 Form C
- Max. Switching capacity 3A



## ORDERING INFORMATION

**HRS1** [H] - [S] - [DC12V]

Model	Coil Sensitivity	Enclosure	Coil Voltage
	H - High Sensitivity (200mW) Blank - Standard (360mW)	S - Plastic Sealed Type	DC3V, DC5V, DC6V DC9V, DC12V, DC24V

Remarks: 1. Available in 1 Form C only    2. Contact rating: 1A, 3A

## SPECIFICATION

### CONTACT DATA

Contact Form	1 Form C	
Contact Material	AuAg overlay	
Contact Rating	1A 120VAC/24VDC 3A 120VAC/24VDC	
Contact Resistance	Max. 50mΩ (6VDC 0.1A)	
Load	Max. Switching Voltage	220VAC/30VDC
	Max. Switching Current	3A
	Max. Switching Power	120VA, 30W
	Min. Switching Load	5VDC, 10mA
Life	Electrical	100,000 operations (1A 120VAC/24VDC) 50,000 operations (3A 120VAC/24VDC)
	Mechanical	10,000,000 operations

### GENERAL DATA

Insulation Resistance		Min. 100MΩ 500VDC
Dielectric Strength	Between open contacts	750VAC, 1min
	Between coil and contacts	1,000VAC, 1min
Operate Time		Max. 5ms
Release Time		Max. 5ms
Operating Temperature		-25°C to +70°C
Humidity		35~95%RH, +40°C
Shock Resistance	Endurance	1,000m/s <sup>2</sup>
	Misoperation	100m/s <sup>2</sup>
Vibration Resistance	Endurance	10~55Hz, 1.5mm double amplitude
	Misoperation	10~55Hz, 1.5mm double amplitude
Weight		Approximately 4.0g

Note: Data shown are of initial value

### COIL DATA

Nominal Coil Power	200mW, 360mW
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## SAFETY APPROVAL

File Number	Contact Form	Power Consumption	Coil Voltage	Contact Rating	Remarks
UL E164730	C	0.20W/0.36W	3-24VDC	1A 120VAC/24VDC	Ambient Temperature: 70°C
				3A 120VAC/24VDC	
TUV 50103498	C	0.20W/0.36W	3-24VDC	1A 120VAC/24VDC	Ambient Temperature: 70°C
CQC 12002086133	C	0.20W/0.36W	3-24VDC	1A 120VAC/24VDC	Ambient Temperature: 70°C

Specifications subject to change without notice

ISO9001、ISO/TS16949、ISO14001 Approved

**FKE** HRS1-30

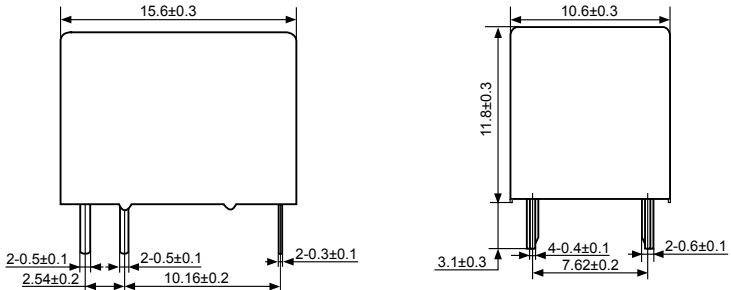
COIL DATA

Ambient Temperature: 23°C

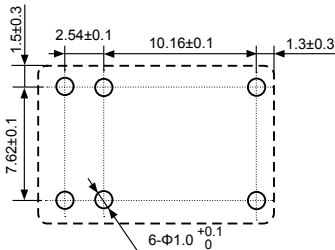
Model	Nominal Voltage VDC	Coil Resistance $\Omega$ +/-10%	Operate Voltage $\leq$ VDC	Release Voltage $\geq$ VDC	Coil Power mW
HRS1-S-DC3V	3	25	2.1	0.3	360
HRS1-S-DC5V	5	70	3.5	0.5	
HRS1-S-DC6V	6	100	4.2	0.6	
HRS1-S-DC9V	9	225	6.3	0.9	
HRS1-S-DC12V	12	400	8.4	1.2	
HRS1-S-DC24V	24	1600	16.8	2.4	
HRS1H-S-DC3V	3	45	2.25	0.3	200
HRS1H-S-DC5V	5	125	3.75	0.5	
HRS1H-S-DC6V	6	180	4.5	0.6	
HRS1H-S-DC9V	9	405	6.75	0.9	
HRS1H-S-DC12V	12	720	9.0	1.2	
HRS1H-S-DC24V	24	2880	18.0	2.4	

OUTLINE, WIRING DIAGRAM, MOUNTING HOLE LAYOUT (UNIT: mm)

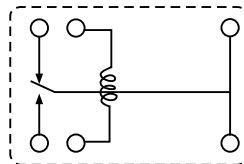
Outline



Mounting Hole Layout (Bottom View)

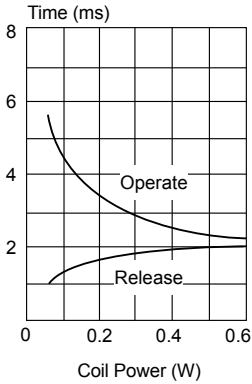


Wiring Diagram (Bottom View)

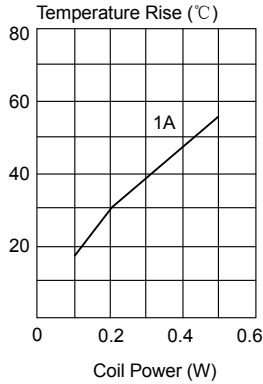


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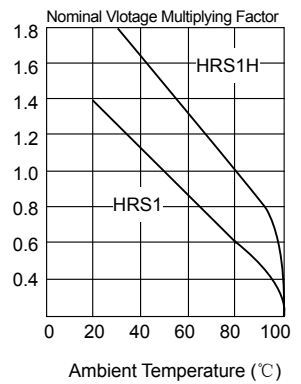
Time Curve



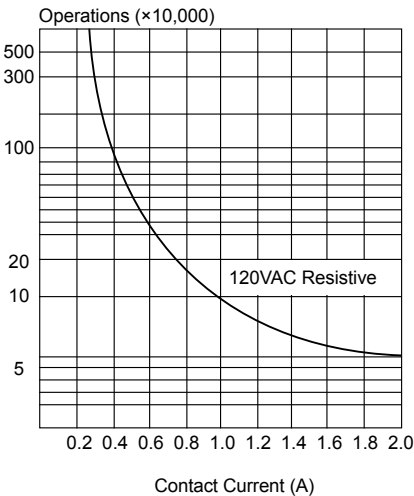
Coil Temperature Rise



Operate Range



Life Curve



Maximum Switching Power

