



SIGNAL RELAY

Safety Approval

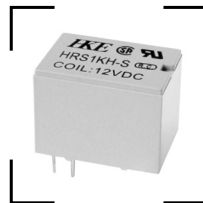
UL US No. E164730

TUV No. R 50103498

CQC No. CQC03001005810

Features

- Microminiature relay
Dimension: 15.6×10.6×11.8 (mm)
- High sensitivity
- Contact: 1 Form C
- Dielectric strength of 2500V between coil and contacts



ORDERING INFORMATION

HRS1K H - S - DC12V E

Model	Coil Sensitivity	Enclosure	Coil Voltage	Dielectric Strength
	H - High Sensitivity (200mW) Blank - Standard (360mW)	S - Plastic Sealed Type	DC3V, DC5V, DC6V DC9V, DC12V, DC24V	E - 2,500VAC, 1min between coil and contacts Blank - 1,500VAC, 1min between coil and contacts

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, Ag Alloy
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	360VA, 90W
	Min. Switching Load	5VDC, 10mA
Life	Electrical	100,000 operations (1A 120VAC/24VDC) 50,000 operations (3A 120VAC/24VDC)
	Mechanical	10,000,000 operations

COIL DATA

Nominal Coil Power	200mW, 360mW
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GENERAL DATA

Insulation Resistance		Min. 100MΩ 500VDC
Dielectric Strength	Between open contacts	750VAC, 1min
	Between coil and contacts	Standard: 1,500VAC, 1min E: 2,500VAC, 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 ²
	Misoperation	100m/s ²
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

SAFETY APPROVAL

File Number	Contact Form	Power Consumption	Coil Voltage	Contact Rating	Remark
UL E164730	C	0.20W/0.36W	3-24VDC	1A 120VAC/24VDC	Ambient Temperature: 70°C
TUV R 50103498	C	0.20W/0.36W	3-24VDC	1A 120VAC/24VDC	Ambient Temperature: 70°C
CQC 03001005810	C	0.20W/0.36W	3-24VDC	1A 120VAC/24VDC	—

Specifications subject to change without notice

ISO9001、ISO/TS16949、ISO14001 Approved

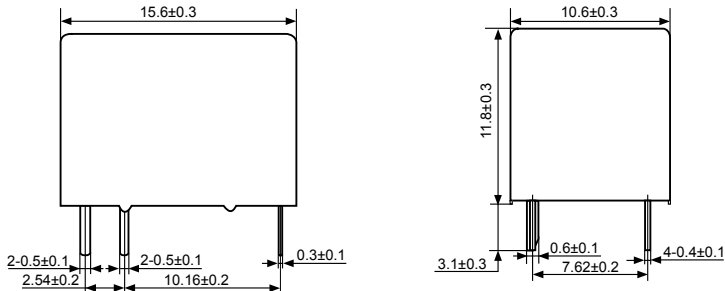
COIL DATA

Ambient Temperature: 23°C

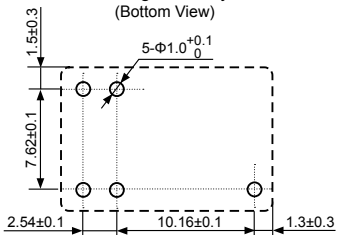
Model	Nominal Voltage VDC	Coil Resistance Ω +/-10%	Operate Voltage \leq VDC	Release Voltage \geq VDC	Coil Power mW
HRS1K-S-DC3V	3	25	2.1	0.3	360
HRS1K-S-DC5V	5	70	3.5	0.5	
HRS1K-S-DC6V	6	100	4.2	0.6	
HRS1K-S-DC9V	9	225	6.3	0.9	
HRS1K-S-DC12V	12	400	8.4	1.2	
HRS1K-S-DC24V	24	1600	16.8	2.4	
HRS1KH-S-DC3V	3	45	2.25	0.3	200
HRS1KH-S-DC5V	5	125	3.75	0.5	
HRS1KH-S-DC6V	6	180	4.5	0.6	
HRS1KH-S-DC9V	9	405	6.75	0.9	
HRS1KH-S-DC12V	12	720	9.0	1.2	
HRS1KH-S-DC24V	24	2880	18.0	2.4	

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

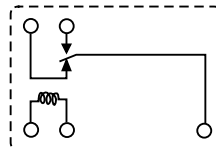
Outline



Mounting Hole Layout
(Bottom View)

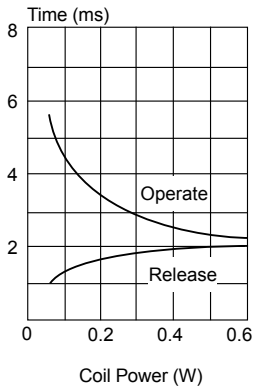


Wiring Diagram
(Bottom View)

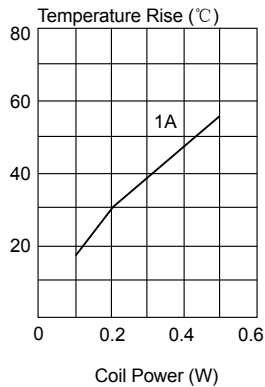


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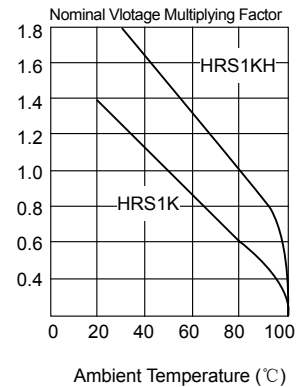
Timing



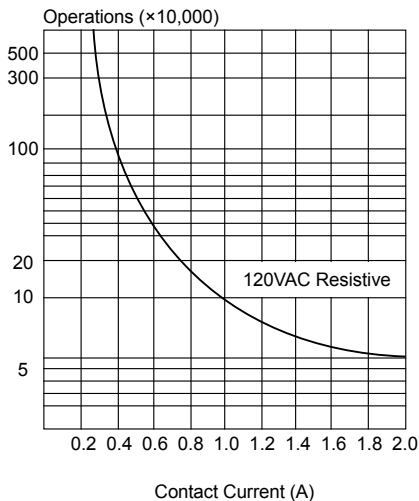
Coil Temperature Rise



Operate Range



Life Curve



Maximum Switching Power

