

HF Series Reed Relays

- **Features:** High Voltage Relay, Open Frame with M4 Screw Mount
- **Applications:** Test and Medical Equipment & Others
- **Markets:** Medical, Test and Measurement & Others


Part Description: **HF00-1X54**

Nominal Voltage	Contact Quantity & Contact Form	Switch Model
12, 24	1A, 1B	54

Customer Options	Switch Model	Unit
Contact Data (@ 20°C)	54 (A-Dry)	
Contact Material	Rhodium	
Rated Power (max.) Any DC combination of V&A not to exceed max. rated power	25	W
Switching Voltage (max.) DC or peak AC	500	V
Switching Current (max.) DC or peak AC	1.5	A
Carry Current (max.) DC or peak AC	5.0	A
Contact Resistance (max.) @ 0.5V & 10mA, Measured with 40% Pull-In Overdrive	150	mOhm
Breakdown Voltage (min.) (upon request)* According to EN60255-27	10	kVDC
Operating Time (max.) Including Bounce, Measured w/40% Pull-In Overdrive	3.0	ms
Release Time (max.) Measured without Coil Suppression	1.5	ms
Insulation Resistance (min./typ.) Rh<45%, 100V Test Voltage	10 ¹⁰	Ohm
Capacitance (typ.) @ 10kHz across open Switch	2.5	pF

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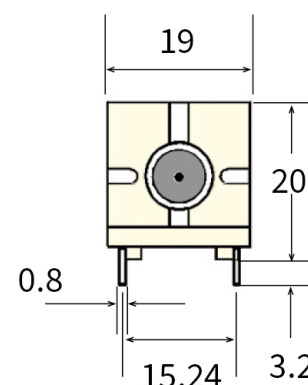
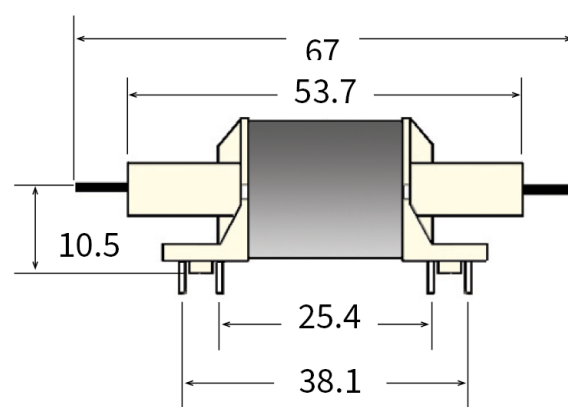
Coil Data (at 20°C)		Coil Voltage (VDC)		Coil Resistance (OH)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Coil Power (mW)	Coil Inductance (mH)
Contact Form	Switch Model	Nominal	Max.	Typical (± 10 %)	Max.	Min.	Nominal	Nominal
1A	54	5		40	3.5	0.75	625	
		12		250	8.4	1.8	575	
		24		1,000	16.8	3.6	575	
1B*		5		30	3.5	0.75	835	
		12		170	8.4	1.8	850	
		24		680	16.8	3.6	850	

The Pull-In, Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C

* Re-closure of Form B may occur if the max. coil voltage is exceeded. Coil polarity on Form B must be observed. Pin 2 is positive.

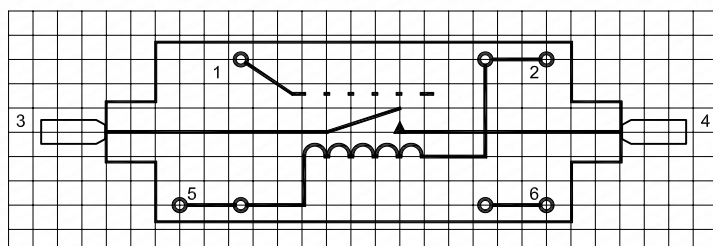
Relay Data (@ 20°C)		Unit
Dielectric Strength Coil/Contact (min.) According to EN60255-27	20	kVDC
Insulation Resistance Coil/Contact (min.) Rh<45%, 200V Test Voltage	10 ¹²	OH
Capacitance Coil/Contact (typ.) @ 10 kHz	1.2	pF
Shock Resistance (max.) 1/2 sine wave, 6md, 3-axis	50	g
Vibration Resistance (max.) 10 – 2,000 Hz	20	g
Operating Temperature (max.) Surrounding of the relay's housing	-40 to 85	°C
Storage Temperature (max.) Surrounding of the relay's housing	-40 to 105	°C
Soldering Temperature (max.) 5 sec. max.	260	°C
Washability Aqueous rinse suitable. Proper drying necessary.	Fully Sealed	

Dimensions (in mm [inch]) Tolerances acc. to ISO 2768-m



Pin-Out (Top View)

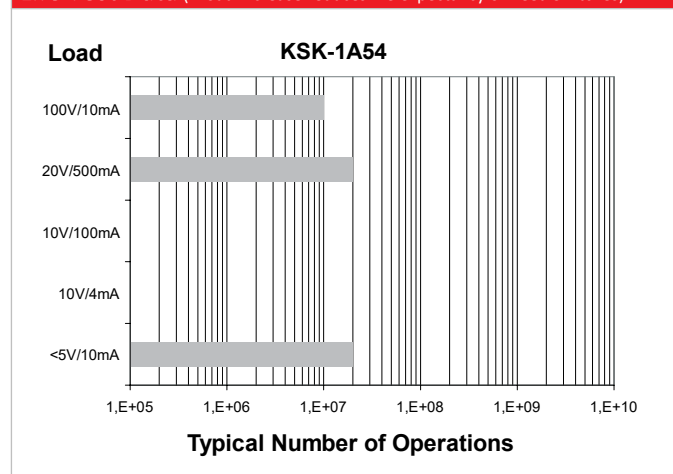
View from top of component
2,5 mm [0,098"] pitch grid



Pin #5 must be positive for Form B version

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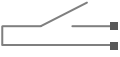
Life Test Data (*Load increase reduces life expectancy of Reed Switches)



Handling & Assembly Instructions

- Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay.
- Protective circuits need to be used.
- External magnetic fields need to be taken into consideration, including a too high packing density. This may influence the relays' electrical characteristics.
- Mechanical shock impacts e.g. dropping the relays may cause immediate or post-installation failure.
- Wave soldering: maximum 260°/5 seconds.
- Reflow soldering: Recommendations given by the soldering paste manufacturer need to be considered as well as the temperature limits of other components/processes.

Glossary Contact Form

Form A	NO = Normally Open Contacts SPST = Single Pole Single Throw	
Form B	NC = Normally Closed Contacts SPST = Single Pole Single Throw	

Please note: All technical specifications on this series datasheet refer to the standard product range. Modifications in the sense of technical progress are reserved. For general information only. For more specific information, please consult the product datasheet, available upon request.

This series datasheet could contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein. These changes will be incorporated in future revisions.

For deviating values, most current specifications and products please contact your nearest sales office.