High Voltage Reed Relays

DESCRIPTION

High voltage relay having up to 10 kVDC switching and 15 kVDC breakdown voltage contact to coil.

FEATURES

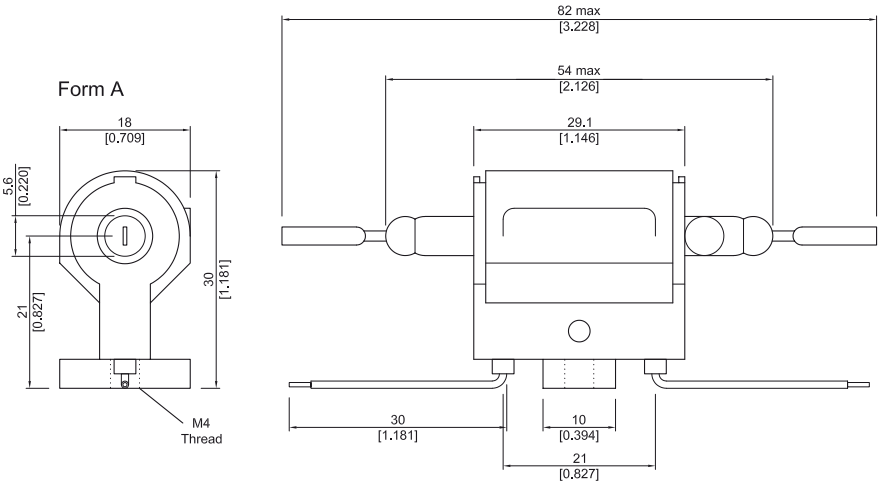
- Form A and B options
- Switching up to 10 kVDC
- 1000 Gigaohm between coil and contact
- Breakdown voltage of 15 kVDC

CHARACTERISTICS

- Coil covered with a thermoplastic that meets UL94V-0

DIMENSIONS

All dimensions in mm [inches]



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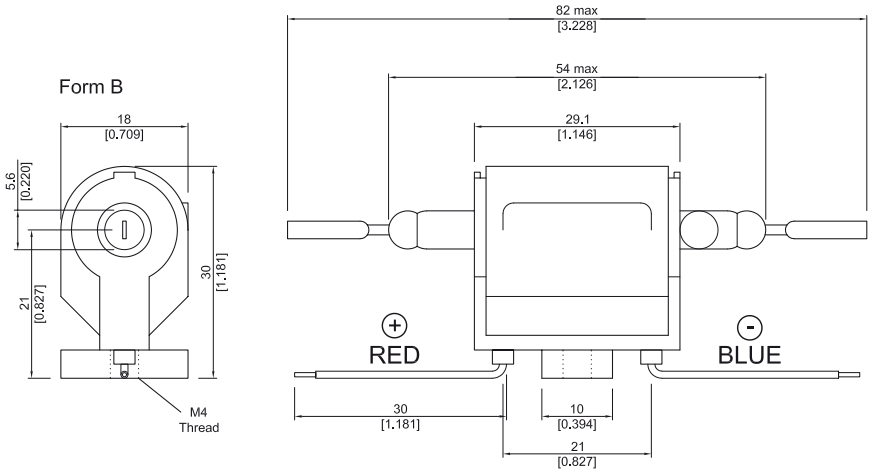

ORDER INFORMATION

Series	Nominal Voltage	Contact Form	Switch Model
H	XX -	1X	XX
Options	05, 12, 24	A, B	69, 83

Part Number Example

H24 - 1A83

24 is the nominal voltage
1A is the contact form
83 is the switch model

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RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 69 Form A / B			Switch 83 Form A / B			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Unit**
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50			50	W
Switching Voltage	DC or peak AC			10			7.5	kV
Switching Current	DC or peak AC			3.0			3.0	A
Carry Current	DC or peak AC			5.0			5.0	A
Static Contact Resistance	w/ 0.5 V & 10mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure			200			200	mΩ
Insulation Resistance across Contacts	100 volts applied	10^{10} 10^{12}			10^{9} 10^{12}			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	15 15			10 15			kVDC
Operation Time incl. Bounce	Measured w/ 100 % overdrive			3.0			3.0	ms
Release Time	Measured w/ no coil suppression			1.5			1.5	ms
Capacitance	at 10 kHz cross contact		0.8 8			0.8 8		pF
Life Expectancies								
Switching 5 V - 10 mA	DC only & <10 pF stray cap.		NA			50		10^{6} Cycles
For other load requirements please see our life test section on P. 112.								
Environmental Data								
Shock Resistance	1/2 sinus wave duration 11 ms			50			30	g
Vibration Resistance	From 10 - 2000 Hz			20			10	g
Ambient Temperature	10°C/ minute max. allowable	-20		70	-20		70	°C
Stock Temperature	10°C/ minute max. allowable	-25		85	-25		85	°C
Soldering Temperature	5 sec.			260			260	°C

COIL DATA

Contact Form	Switch Model	Coil Voltage		Coil Resistance			Pull-in Voltage	Drop-out Volage	Nominal Coil Powe
All Data at 20 °C		VDC		Ω			VDC	VDC	mW
		Nom.	Max.	Min.	Typ.	Max.	Max.	Min.	Typ.
1A	69 83	5	7.5	36	40	44	3.5	0.75	625
		12	16	207	230	253	8.4	1.8	625
		24	30	630	700	770	16.8	3.6	822
1B **	69 83	5	7.5	36	40	44	3.5	0.75	625
		12	16	162	180	198	8.4	1.8	800
		24	30	585	650	715	16.8	3.6	886

* 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.