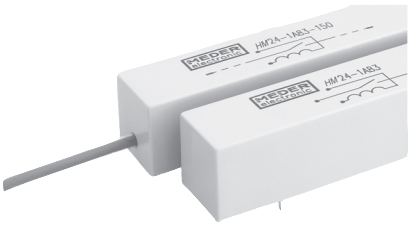
High Voltage Reed Relays for PCB Mounting



DESCRIPTION

High voltage Reed Relays for PCB mounting suitable for switching up to 10 kVDC and breakdown voltage up to 15 kVDC. This series is available with high voltage cables. Standard relays available in 1 Form A and 1 Form B switching configurations. 2 Form A and 1 Form C with a switching voltage of up to 2500 VDC are available, please consult factory.

APPLICATIONS

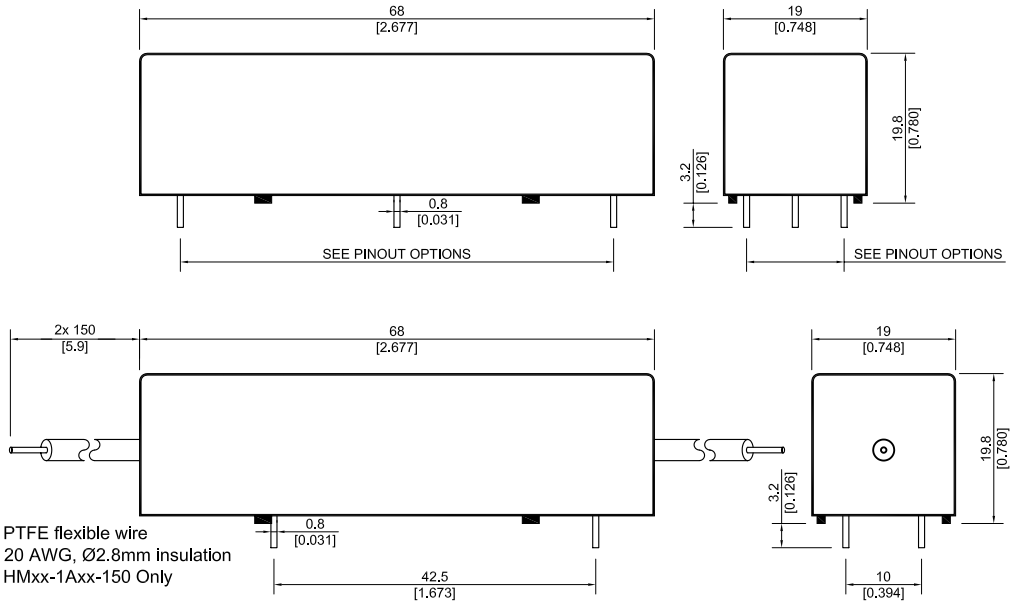
- High voltage test sets
- Cable testers
- Medical equipment (RF surgery)

FEATURES

- Power switching up to 100 W available
- Special pin outs available
- 1 Form A and 1 Form B are standard
- Various case sizes and cable lengths available
- 32 mm spacing between contact and coil available

DIMENSIONS

All dimensions in mm [inches]



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ORDER INFORMATION

Part Number Example

HM12 - 1A83 - 02

12 is the nominal voltage
1A is the contact form
83 is the switch model
02 is the pinout

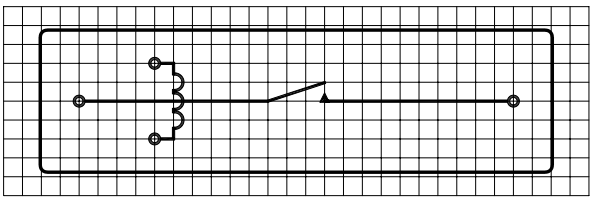
SERIES	NOMINAL VOLTAGE	CONTACT FORM	SWITCH MODEL	PINOUT
HM	XX -	XX	XX -	XXx **
OPTIONS	05, 12, 24	1A*	69, 83	02, 03, 04, 06, 08, 150
		1B	83	

* 2A available
** Pinouts only applicable for 1A

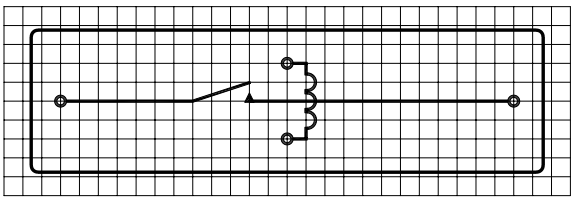
PIN OUT

View from top of component
2.5mm [0.098"] pitch grid

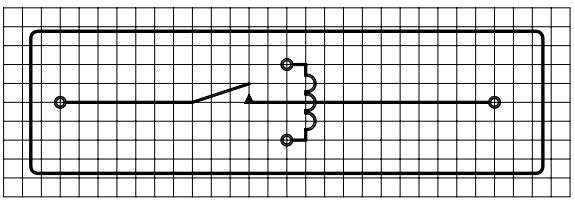
HMxx-1Axx



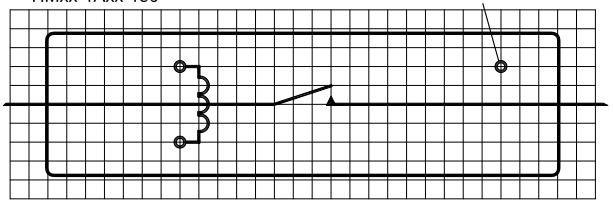
HMxx-1Axx-06



HMxx-1Axx-03

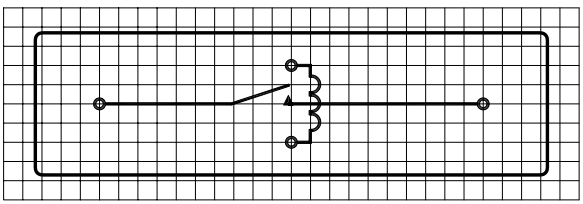


HMxx-1Axx-150

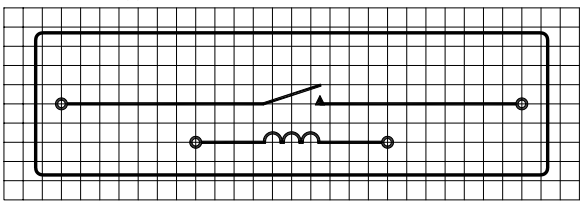


View from top of component
2.54mm [0.100"] pitch grid

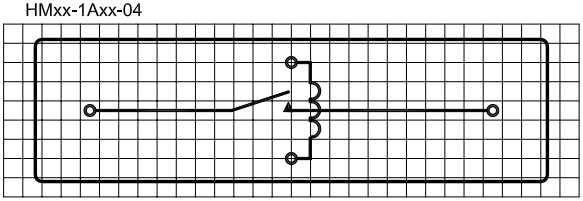
HMxx-1Axx-02



HMxx-1Axx-08



HMxx-1Axx-04



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RELAY DATA

All data at 20 °C	Switch Model --> Contact Form -->	Switch 69 Form A			Switch 83 Form A / B			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
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/ 0.5V & 50mA			150			150	mΩ
Insulation Resistance (100 Volts applied)	Across contacts Contact to coil	10^{10} 10^{12}			10^{10} 10^{12}			Ω
Breakdown Voltage	Across contacts Contact to coil	15 15			10 15			kVDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			3.0			3.0	ms
Reset Time	Measured w/ no coil suppression			1.5			1.5	ms
Capacitance	Across contacts Contact to coil		0.8 5.0			0.8 5.0		pF
Life Expectancies								
Switching 5 Volts@ 10mA	DC only & <10 pF stray cap.		50			50		10^6 Cycles
For other load requirements please see our life test section located on page 151.								
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10 °C/ minute max. allowable	-20		70	-20		70	°C
Storage Temperature	10 °C/ minute max. allowable	-35		105	-35		105	°C
Soldering Temperature	5 sec. dwell			260			260	°C

COIL DATA

CONTACT FORM	SWITCH MODEL	COIL VOLTAGE		COIL RESISTANCE			PULL-IN VOLTAGE		DROP-OUT VOLTAGE		NOMINAL COIL POWER
All data at 20 °C*		VDC		Ω			VDC		VDC		mW
		Nom.	Max.	Min.	Typ.	Max.	Min.	Max.	Min.	Max.	Typ.
1A	83	5	7.5	45	50	55	0.85	3.5	0.75	3.4	500
		12	16	225	250	275	1.9	8.4	1.8	8.3	575
		24	30	900	1000	1100	3.7	16.8	3.6	16.7	575
1B**		5	7.5	90	100	110	0.85	3.5	0.75	3.4	250
		12	16	360	400	440	1.9	8.4	1.8	8.3	360
		24	30	1350	1500	1650	3.7	16.8	3.6	16.7	385

* The pull-in / drop-out voltages and coil resistances will change at the rate of 0.4% per °C.
** Reclosure of the Form B may occur if the max. coil voltage is exceeded. Coil polarity on Form B must be observed.