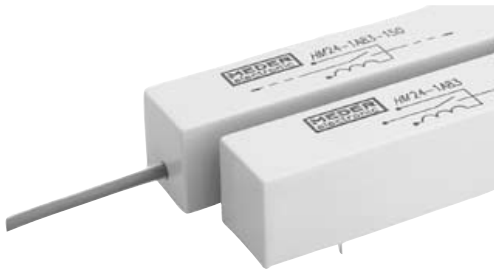


## High Voltage Reed Relays for PCB Mounting



## DESCRIPTION

High voltage Reed Relays for PCB mounting suitable for switching up to 10 kVDC with breakdown voltages 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.

## APPLICATIONS

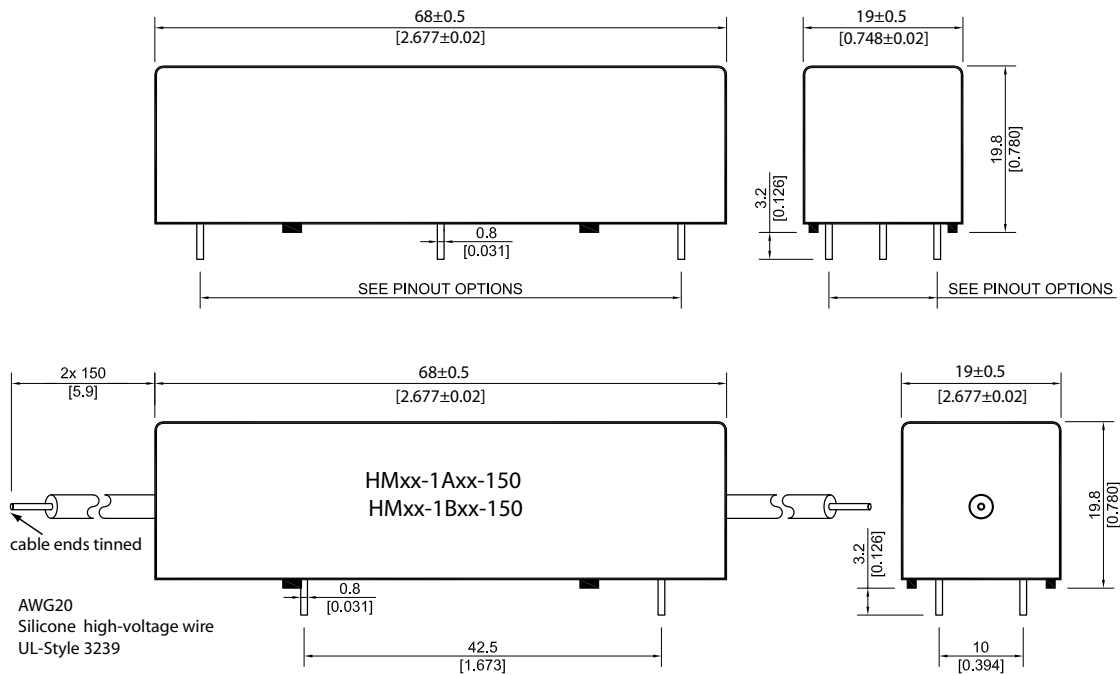
- High voltage test sets
- Cable testers
- Medical equipment (RF surgery)

## FEATURES

- Power switching up to 50 W available
- Special pin outs available
- 1 Form A and 1 Form B are standard
- Various cable lengths available
- 32 mm spacing between contact and coil available

## DIMENSIONS

All dimensions in mm [inch]



**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	Pin Out
HM	XX -	XX	XX	XXx
Options	05, 12, 24	1A	69, 83	02, 03, 04, 06, 08, 150
		1B	69, 83	06, 150

**PIN OUT**

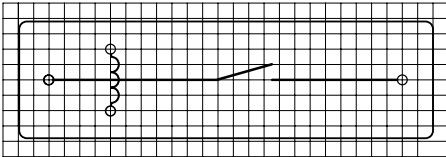
View from top of component

2.5mm [0.098"] pitch grid

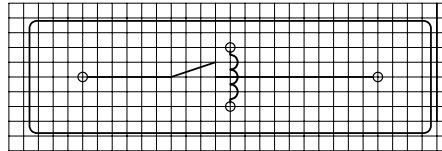
2.54mm [0.100"] pitch grid

2.5mm [0.098"] pitch grid

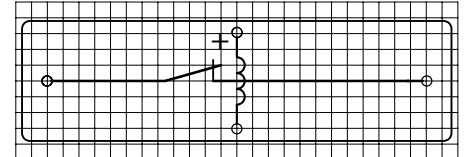
HMxx-1Axx



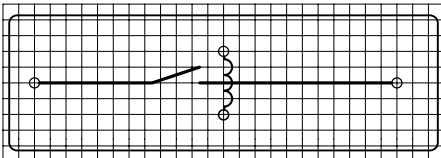
HMxx-1Axx-02



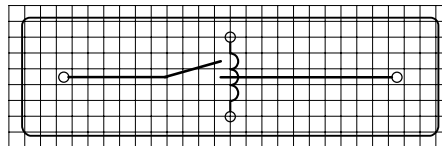
HMxx-1Bxx-06



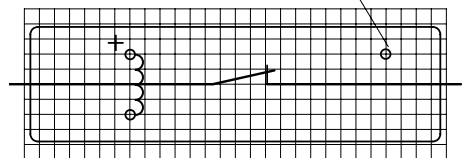
HMxx-1Axx-03



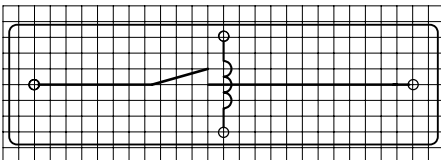
HMxx-1Axx-04



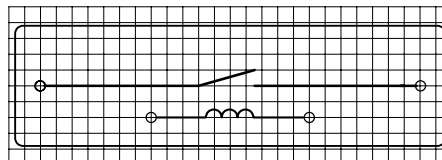
HMxx-1Bxx-105



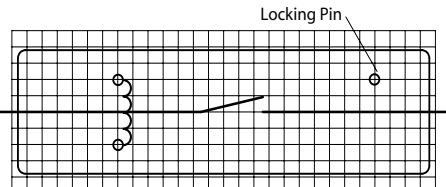
HMxx-1Axx-06



HMxx-1Axx-08



HMxx-1Axx-150



## High Voltage Reed Relays for PCB Mounting

### RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 69 Form A/B			Switch 83 Form A/B			Unit
	Conditions	Min.	Typ.	Max.	Min.	Typ.	Max.	
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
Insulation Resistance (100 Volts applied)	Across contacts Contact to coil	10 <sup>13</sup> 10 <sup>13</sup>			10 <sup>13</sup> 10 <sup>13</sup>			Ω
Breakdown Voltage	Voltage applied for 60 sec. min.	15 15			10 15			kVDC
Operate 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	Across contacts Contact to coil		0.8 5.0			0.8 5.0		pF
<b>Life Expectancies</b>								
Switching 5 V - 10 mA	DC only & <10 pF stray cap.		50			50		10 <sup>6</sup> Cycles
For other load requirements please see our life test section on P. 120.								
<b>Environmental Data</b>								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		70	-20		70	°C
Stock 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.	Max.	Min.	Typ.
1A	83	5	7.5	41	45	50	3.8	0.5	555
		12	16	225	250	275	9.0	1.0	575
		24	30	900	1000	1100	18	2.0	575
	69	5	7.5	27	30	33	3.8	0.5	833
		12	16	135	150	165	9.0	1.0	960
		24	30	540	600	660	18	2.0	960
1B	83	5	7.5	40.5	45	49.5	3.8	0.5	555
		12	16	225	250	275	9	1.0	575
		24	30	900	1000	1100	18	2.0	575
	69	5	7.5	40.5	45	49.5	3.8	0.5	555
		12	16	225	250	275	9	1.0	575
		24	30	900	1000	1100	18	2.0	575

\* The pull-in / drop-out voltage and coil resistance will change at rate of 0.4% per °C.