

High Voltage Reed Relays for PCB Mounting



DESCRIPTION

High voltage Reed Relays for PCB mounting suitable for switching up to 7.5 kVDC and breakdown voltage up to 10 kVDC. This series is available with high voltage cables. Standard relays available in 1 Form A and 1 Form B switching configurations.

FEATURES

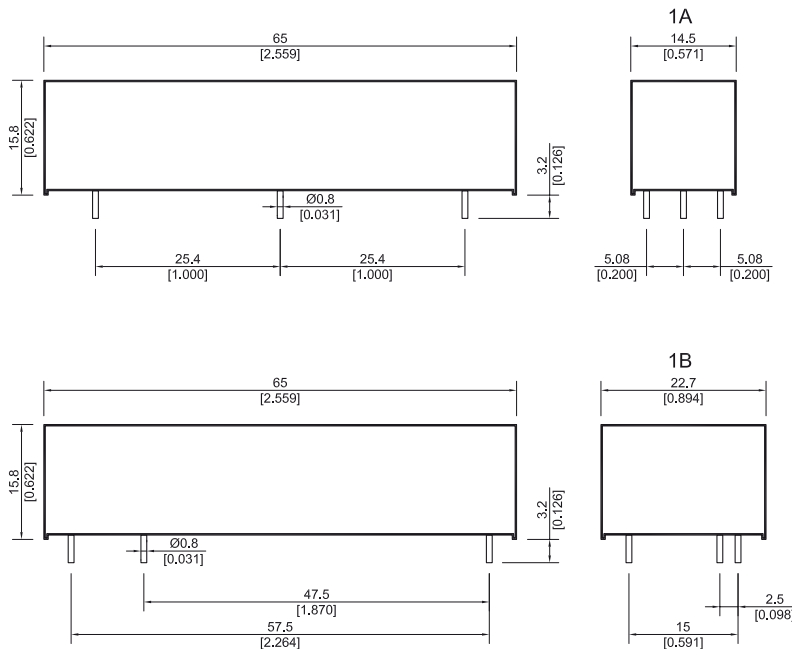
- Power switching up to 50 W available
- Special pin outs available
- 1 Form A and 1 Form B are standard
- Various case sizes and cable lengths available
- ≥ 26 mm spacing between contact and coil available

APPLICATIONS

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

DIMENSIONS

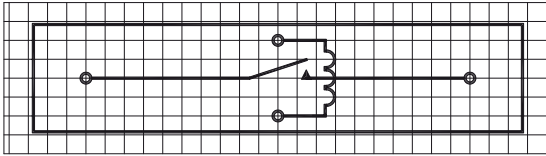
All dimensions in mm [inches]



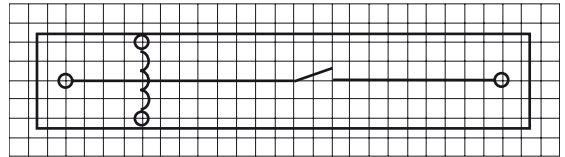
PIN OUT

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

HExx-1A83-02

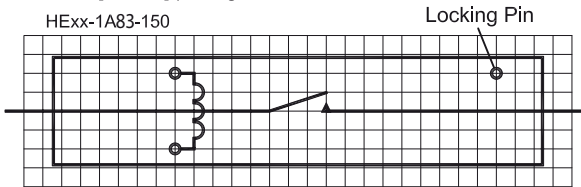


HExx-1A-83

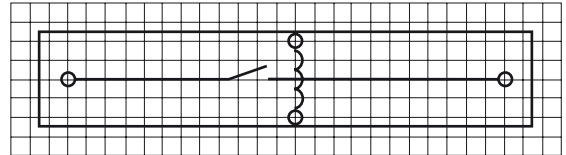


View from top of component
 2.5mm [0.098"] pitch grid

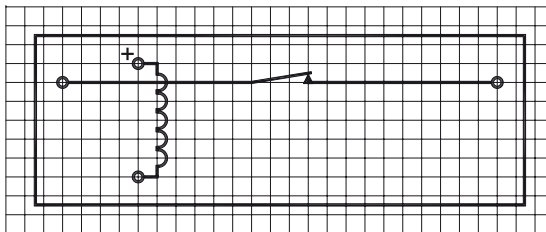
HExx-1A83-150



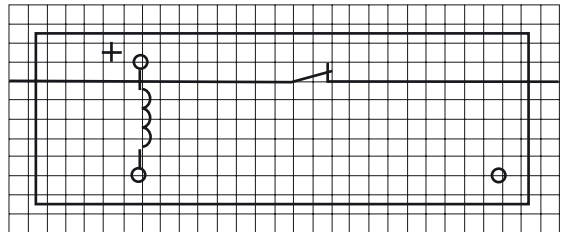
HExx-1A83-03



HExx-1B83xx*



HExx-1B83-150



* Version 2A available.

ORDER INFORMATION

Part Number Example

HE12 - 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
HE	XX -	XX	XX	
Options	05, 12, 24	1 A 1 B	83	02, 03, 150 150

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RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 83 Form A / B			Unit
		Min.	Typ.	Max.	
Contact Ratings	Conditions				
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50	W
Switching Voltage	DC or peak AC			7.5	kV
Switching Current	DC or peak AC			3.0	A
Carry Current	DC or peak AC			5.0	A
Static Contact Resistance	w/ 0.5 V & 10mA			150	mΩ
Insulation Resistance across Contacts	100 volts applied	10 ¹⁰ 10 ¹²			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	10 10			kVDC
Operation Time incl. Bounce	Measured w/ nominal voltage			3.0	ms
Release Time	Measured w/ no coil suppression			1.5	ms
Capacitance	at 10 kHz cross contact		0.8 5.0		pF
Life Expectancies					
Switching 5 V - 10 mA	DC only & <10 pF stray cap.		50		10 ⁶ Cycles
For other load requirements please see our life test section.					
Environmental Data					
Shock Resistance	1/2 sinus wave duration 11 ms			30	g
Vibration Resistance	From 10 - 2000 Hz			10	g
Ambient Temperature	10°C/ minute max. allowable	-20		70	°C
Stock Temperature	10°C/ minute max. allowable	-35		105	°C
Soldering Temperature	5 sec.			260	°C

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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	45	50	55	3.5	0.75	500
		12	16	225	250	275	8.4	1.8	575
		24	30	900	1000	1100	18	3.5	575
1B *		5	7.5	90	100	110	3.5	0.75	250
		12	16	360	400	440	8.4	1.8	360
		24	30	1350	1500	1650	18	3.5	385

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.