

**HE400 P.C.B. Mount Features and Benefits**

**Features**

- Multi-pole configuration (up to 6 normally open contacts)
- Combination normally open/normally closed option
- Available with 5V, 12V or 24V coil options as standard
- Magnetic shield option
- Lengthways coil option
- In line pins
- Fully encapsulated

**Benefits**

- One relay, many contacts reducing space and cost without compromising
- Lower power coil consumption than competing electromechanical
- Hermetically sealed switching contact is immune to the effects of its environment

**Applications**

- Security
- Telecoms
- Instrumentation
- Process
- Industrial

**DIMENSIONS (in) mm**

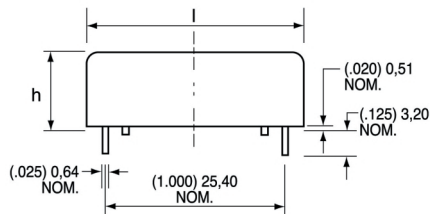


Figure 1 HE400

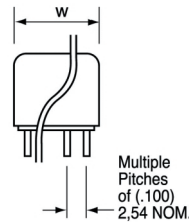
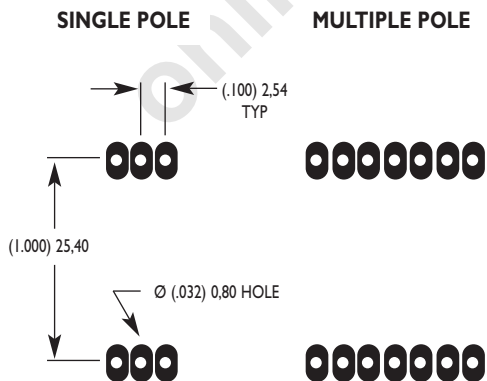


Figure 2 HE400

**Table 1**

Relay Type	Case Size, Max.	All h	All l	l w	2 w	3 w
HE400	Plastic or Metal Case	(.354) 9	(1.182) 30	(.394) 10	(.493) 12,5	(.591) 15

**HE400 PCB LAYOUT (Bottom View)**



**ORDERING INFORMATION**

**PART NUMBER** HE4X X X XX X X

**Model Number**  
HE42 - Standard  
HE45 - High Voltage

**Number of Contacts**  
1,2,3,4,5,6 (5,6 Form A only)

**Contact Type**  
A - Form A (SPST-NO)  
C - Form C (SPDT-CO)

**Coil Termination**  
0 - End Coil  
3 - Lengthwise

**Case Option**  
5 - Plastic case  
9 - Metal case

**Standard Coil**  
05 - 5 Volt  
12 - 12 Volt  
24 - 24 Volt

**EXAMPLE:** The HE421A0550 is a 1 Form A relay with a 5 Volt coil, plastic case and end coil termination.

See next page for: **Electrical and Operating Characteristics Description and Coil Characteristics**

**Table 2 HE400 Series Electrical and Operating Characteristics @ 25°C.**

Column Number			1	2	3
Contact Type			Form A Standard	Form C Standard	Form A High Voltage
Relay Types			HE400	HE400	HE400
CONTACT RATINGS	Power, Switching	Watt - max.	10	5	10
Contact Hamlin for specific load/life details.	Voltage, Switching	Vdc - max.	200	175	300
	Current, Switching	A - max.	0.5	0.25	0.5
	Current, Carry	A - max.	1.2	1.5	1.5
VOLTAGE HOLD-OFF	Across Open Contacts	Vdc - min.	250	200	450
	Contacts to Coil	Vac - min.	1500	1500	1500
	Between Isolated Terminals				
	Plastic case	Vac - min.	1500	1500	1500
	Metal Case	Vac - min.	1000	1000	1000
RESISTANCE	Contact, Initial	Ω - max.	0.150	0.150	0.150
	Insulation: Across Open Contacts	Ω - min.	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>10</sup>
	Between Isolated Terminals	Ω - min.	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>10</sup>
TIMING	Operate Time	ms - max.	1.0	3.0	1.0
	Release Time	ms - max.	1.0	3.0	1.0
ENVIRONMENTAL	Temperature, Operating	°C	-40 to +85	-40 to +85	-20 to +85
	Temperature, Storage	°C	-40 to +105	-40 to +105	-40 to +105
	Vibration Resistance	G - max.	20	20	20
		10-2000 Hz.			
	Shock Resistance	G - max.	50	50	50
		11 ms, 1/2 sine			

**Table 3 HE400 Series Miniature Relay Coil Characteristics @ 25°C.**

Contact Form & Type	Electrical & Operating Characteristics	Dimensions Case Size	Part Number Plastic Case See Note 1	Nominal Coil Voltage Vdc	Coil Resistance ±10% Ohms	Must Operate Vdc	Must Release Vdc	Maximum Coil Voltage Vdc	Top View 2,54 mm, 0.1 in. Grid Dot on Case: Pin 1 Numbers not printed on case.
1A SPST-NO	See Table 2 Column 1	See Table 1 Column 1	HE421A0550 HE421A1250 HE421A2450	5 12 24	240 960 3840	3.75 8.5 18.0	0.4 1.0 2.0	11 27 54	
2A DPST-NO	See Table 2 Column 1	See Table 1 Column 2	HE422A0550 HE422A1250 HE422A2450	5 12 24	145 575 2300	3.75 8.5 18.0	0.4 1.0 2.0	9 22 43	
1A SPST-NO High Voltage	See Table 2 Column 3	See Table 1 Column 1	HE451A0550 HE451A1250 HE451A2450	5 12 24	240 960 3840	3.75 8.5 18.0	0.4 1.0 2.0	11 27 54	
2A DPST-NO High Voltage	See Table 2 Column 3	See Table 1 Column 2	HE452A0550 HE452A1250 HE452A2450	5 12 24	145 575 2300	3.75 8.5 18.0	0.4 1.0 2.0	9 22 43	
1C SPDT-CO	See Table 2 Column 2	See Table 1 Column 1	HE421C0550 HE421C1250 HE421C2450	5 12 24	240 960 3840	3.75 8.5 18.0	0.4 1.0 2.0	11 27 54	
2C DPDT-CO	See Table 2 Column 2	See Table 1 Column 3	HE422C0550 HE422C1250 HE422C2450	5 12 24	105 415 1660	3.75 8.5 18.0	0.4 1.0 2.0	8 22 43	

- Notes: 1) Part numbers shown are for plastic case. For metal case option, replace last two digits 50 with 90.  
2) The relays shown to the right are available on a build to order basis. Contact Hamlin for details.  
3) Special requirements such as side coil termination, coil resistance and contact configuration are available. Contact Hamlin for details.

Type	3A	4A	5A	6A	3C	4C
HE42	+	+	+	+	+	+
HE45	+	+	+	+	-	-

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