

## HE700 D.I.L. Relay Features and Benefits



### Features

- Miniature dual in line package
- Choice of normally open, normally closed and change over contacts
- High voltage switching option
- Up to 2 normally open contacts
- Available with 5V, 12V or 24V coil options as standard
- Magnetic shield option
- Diode suppression option
- Diagonal coil option

### Benefits

- One relay, various contacts choices reducing space and cost without compromising flexibility
- Lower power coil consumption than competing electromechanical devices.
- Hermetically sealed switching contact is immune to the effects of its environment
- Transfer moulded package gives maximum component protection

### Applications

- Security
- Telecoms
- Instrumentation
- Process Control
- Industrial

## DIMENSIONS (in) mm



Figure 1 HE700



Figure 2 HE751



Figure 3 HE700 (All)

Table 1

Relay Type	Body Type	l	w	h
HE700	Transfer Molded External Shield	(.750) 19,05 (.795) 20,19	(.285) 7,24 (.300) 7,62	(.295) 7,50 (.305) 7,75

## HE700 PCB LAYOUT (Bottom View)



## ORDERING INFORMATION

### PART NUMBER HE7X X X XX XX

#### Model Number

HE72 - Standard  
HE75 - High Voltage

#### Number of Contacts

1,2

#### General Options

00 - No Options  
10 - Coil Suppression Diode  
20 - Electrostatic Shield  
30 - Coil Diode and E.S. Shield  
40 - External Magnetic Shield  
50 - External Magnetic Shield and Diode

#### Contact Type

A - Form A (SPST-NO)  
B - Form B (SPST-NC)  
C - Form C (SPDT-CO)  
E - Form C (SPDT-CO) alternate foot print 1  
R - Form C (SPDT-CO) alternate foot print 2

#### Standard Coil

05 - 5 Volt  
12 - 12 Volt  
24 - 24 Volt

**EXAMPLE:** The HE721A0540 is a 1 Form relay with a 5 Volt coil and external magnetic shield

Contact the Hamlin Applications Engineering Department for low profile and other option combinations available.

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

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**Table 2 HE700 Series**  **Recognised File #E47258** **Electrical and Operating Characteristics @ 25°C.**

Column Number			1	2	3	4
Contact Type			Form A SPST, DPST Standard	Form C SPDT-CO Standard	Form A SPST High Voltage	Form B SPST-NC Standard
Relay Types			HE721, HE722	HE721C, E, R	HE751	HE721
CONTACT RATINGS	Power, Switching	Watt - max.	10	5	10	10
Contact Hamlin for specific load/life details	Voltage, Switching	Vdc - max.	200	175	300	200
	Current, Switching	A - max.	0.5	0.25	0.5	0.5
	Current, Carry	A - max.	1.2	1.5	1.2	1.2
VOLTAGE HOLD-OFF	Across Open Contacts	Vdc - min.	250	200	450	250
	Contacts to Coil	Vac - min.	500	500	2500	500
	Coil to E. Shield	Vac - min.	150	150	N/A	N/A
	Between Isolated Terminals	Vac - min.	500	N/A	N/A	N/A
RESISTANCE	Contact, Initial	Ω - max.	0.150	0.200	0.150	0.150
	Insulation: Across Open Contacts	Ω - min.	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>10</sup>	10 <sup>10</sup>
	Between Isolated Terminals	Ω - min.	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>10</sup>
TIMING	Operate Time	ms - max.	1.0	3.0	1.0	1.0
	Release Time	ms - max.	1.0	3.0	1.0	1.0
ENVIRONMENTAL	Temperature, Operating	°C	-40 to +85	-40 to +85	-20 to +85	-40 to +85
	Temperature, Storage	°C	-40 to +105	-40 to +105	-40 to +105	-40 to +105
	Vibration Resistance	G - max. 10-2000 Hz.	20	20	20	20
	Shock Resistance	G - max. 11 ms, 1/2 sine	50	50	50	50

**Table 3 HE700 Series Miniature Relay** **Coil Characteristics @ 25°C.**

Contact Form	Electrical & Operating Characteristics	Dimensions	Part Number	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	Figure 1	HE721A0500	5	500	3.75	0.5	12	
			HE721A1200	12	1000	8.0	1.0	31	
			HE721A2400	24	2150	16.0	2.0	46	
1B SPST-NC	See Table 2 Column 4	Figure 1	HE721B0500	5	500	3.75	0.5	See Note 2, 3 6.5	
			HE721B1200	12	500	9.0	1.0	14	
			HE721B2400	24	2150	18.0	2.0	28	
1C SPDT-CO	See Table 2 Column 2	Figure 1	HE721C0500	5	200	3.75	0.5	14	
			HE721C1200	12	500	8.0	1.0	22	
			HE721C2400	24	2000	16.0	2.0	44	
1C SPDT-CO	See Table 2 Column 2	Figure 1	HE721E0500	5	200	3.75	0.5	14	
			HE721E1200	12	500	8.0	1.0	22	
			HE721E2400	24	2000	16.0	2.0	44	
1C SPDT-CO	See Table 2 Column 2	Figure 1	HE721R0500	5	200	3.75	0.5	14	
			HE721R1200	12	500	8.0	1.0	22	
			HE721R2400	24	2000	16.0	2.0	44	
2A DPST-NO	See Table 2 Column 1	Figure 1	HE722A0500	5	200	3.75	0.5	12	
			HE722A1200	12	500	8.0	1.0	22	
			HE722A2400	24	2150	16.0	2.0	46	
1A SPST-NO High Voltage	See Table 2 Column 3	Figure 2	HE751A0500	5	500	3.75	0.5	12	
			HE751A1200	12	1000	8.0	1.0	31	
			HE751A2400	24	2150	16.0	2.0	46	

- Notes:
- 1) The HE 700 Series is also available in low profile with (.225) 5.72mm height. Contact Hamlin for details.
  - 2) HE721B - Exceeding recommended voltage may cause contact closure.
  - 3) Optional external magnetic shield not available on Form B relays.

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