

## 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	(.750) 19,05	(.285) 7,24	(.295) 7,50
	External Shield	(.795) 20,19	(.300) 7,62	(.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**

**Hamlin USA** Tel: +1 920 648 3000 • Fax: +1 920 648 3001 • Email: sales.us@hamlin.com  
**Hamlin UK** Tel: +44 (0)1379 649700 • Fax: +44 (0)1379 649702 • Email: sales.uk@hamlin.com  
**Hamlin Germany** Tel: +49 (0) 6181 953660 • Fax: +49 (0) 6181 9536666 • Email: sales.de@hamlin.com  
**Hamectrol France** Tel: +33 (0) 1 4687 0202 • Fax: +33 (0) 1 4686 6786 • Email: sales.fr@hamlin.com

**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 Contact Hamlin for specific load/life details	Power, Switching Voltage, Switching Current, Switching Current, Carry	Watt - max. Vdc - max. A - max. A - max.	10 200 0.5 1.2	5 175 0.25 1.5	10 300 0.5 1.2	10 200 0.5 1.2
VOLTAGE HOLD-OFF	Across Open Contacts Contacts to Coil Coil to E. Shield Between Isolated Terminals	Vdc - min. Vac - min. Vac - min. Vac - min.	250 500 150 500	200 500 150 N/A	450 2500 N/A N/A	250 500 N/A N/A
RESISTANCE	Contact, Initial Insulation: Across Open Contacts Between Isolated Terminals	Ω - max. Ω - min. Ω - min.	0.150 10 <sup>10</sup> 10 <sup>10</sup>	0.200 10 <sup>9</sup> 10 <sup>10</sup>	0.150 10 <sup>10</sup> 10 <sup>10</sup>	0.150 10 <sup>10</sup> 10 <sup>10</sup>
TIMING	Operate Time Release Time	ms - max. ms - max.	1.0 1.0	3.0 3.0	1.0 1.0	1.0 1.0
ENVIRONMENTAL	Temperature, Operating Temperature, Storage Vibration Resistance Shock Resistance	°C °C G - max. 10-2000 Hz. G - max. 11 ms, 1/2 sine	-40 to +85 -40 to +105 20 50	-40 to +85 -40 to +105 20 50	-20 to +85 -40 to +105 20 50	-40 to +85 -40 to +105 20 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.

INFORMATION PROVIDED ON THIS DATA SHEET IS PROVIDED FOR INFORMATION PURPOSES ONLY AND SHOULD NOT BE RELIED UPON AS BEING ACCURATE FOR ANY PARTICULAR PURPOSE. Product performance may be affected by the application to which the product is put. Upon request, HAMLIN will assist purchasers by providing information specific to any particular application. HAMLIN disclaims any and all liability whatsoever for any purchaser's reliance upon the information contained on this data sheet without further consultation with authorised representatives of HAMLIN.