

## 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 Moulded<br>External Shield | (.750) 19,05<br>(.795) 20,19 | (.285) 7,24<br>(.300) 7,62 | (.295) 7,50<br>(.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 I 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**

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

| Column Number                                 |                                  |                          | 1                                | 2                             | 3                              | 4                             |
|---|----------------------------------|--------------------------|----------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Contact Type                                  |                                  |                          | Form A<br>SPST, DPST<br>Standard | Form C<br>SPDT-CO<br>Standard | Form A<br>SPST<br>High Voltage | Form B<br>SPST-NC<br>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<br>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<br>SPST-NC                 | See Table 2 Column 4                   | Figure 1   | HE721B0500  | 5                        | 500                       | 3.75             | 0.5              | See Note 2, 3<br>6.5     |  |
|                               |  |            | HE721B1200  | 12                       | 500                       | 9.0              | 1.0              | 14                       |   |
|                               |  |            | HE721B2400  | 24                       | 2150                      | 18.0             | 2.0              | 28                       |   |
| 1C<br>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<br>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<br>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<br>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<br>SPST-NO<br>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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.