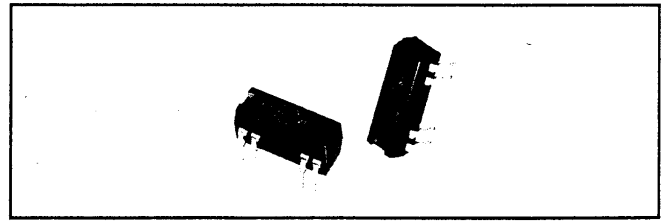


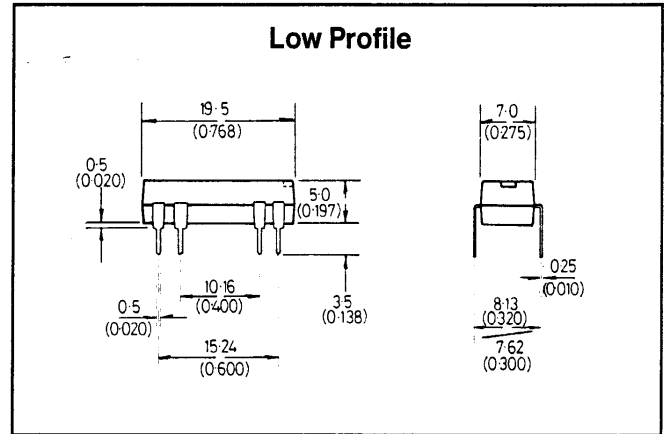
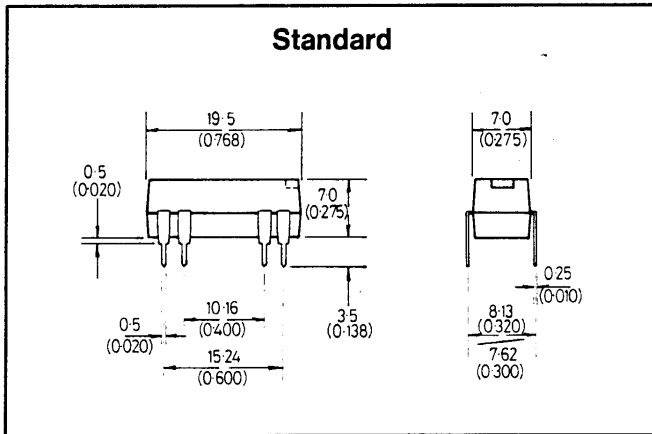
# 700 SERIES

## DUAL-IN-LINE Reed Relays

- transfer molded relays in IC style packages
- designed for automatic insertion into IC-sockets or PC boards



### 1 Dimensions (in mm, ( ) = in inches)



### 2 General Specifications

#### Electrical Data

<b>Voltage Hold-off</b> (at 50 Hz, 23° C, 40% RH)	
coil to contact	500 V d.c.
(for relays with contact type 5, spare pins removed)	2500 V d.c.)
coil to electrostatic shield	150 V d.c.
between all other mutually insulated terminals	500 V d.c.
<b>Insulation resistance</b> (at 23° C, 40% RH)	
coil to contact	10 <sup>10</sup> Ω min. (at 100 V d.c.)

#### Mechanical Data

<b>Shock</b>	50 g (11 ms) 1/2 sine wave (for Hg-wetted contacts) 5 g (11 ms) 1/2 sine wave
<b>Vibration</b>	20 g (10–2000 Hz) (for Hg-wetted contacts) consult HAMLIN office
<b>Temperature Range</b>	–40 to +85° C (for Hg-wetted contacts) –38 to +85° C
<b>Drain time</b>	30 sec. after reaching vertical position (for Hg-wetted contacts)
<b>Mounting</b>	any position (for Hg contacts type 3) 30° max. from vertical
<b>Pins</b>	tin plated, solderable, ∅ 0.6 mm (0.0236") max.

### 3 Contact Characteristics

Contact type number		2	2	3	4	5
Characteristic		Dry		Hg-wetted	Hg-wetted all position	Dry pressurized
Contact Form		A	B/C	A	A	A
Contact Rating, max.	W	10	3	50	3	10
Switching Voltage, max.	V d.c.	200	200	400	28	300
Switching Current, max.	A	0.5	0.25	2.0	0.10	0.5
Carry Current, max.	A	1.5	1.2	3.0	1.0	1.5
Min. Voltage Hold-off across contacts	V d.c.	250	250	1000	1000	800
Insulation Resistance, min.	Ω	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>10</sup>
Initial Contact Resistance, max.	Ω	0.200	0.200	0.070	0.100	0.200

#### Operating life (in accordance with ANSI, EIA/NARM-Standard) – Number of operations

Load		2	2	3	4	5
10 mA/5 V d.c.		5 × 10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>9</sup>	10 <sup>7</sup>	5 × 10 <sup>7</sup>
100 mA/12 V d.c.		10 <sup>7</sup>	7 × 10 <sup>6</sup>	10 <sup>9</sup>	5 × 10 <sup>6</sup>	10 <sup>7</sup>
250 mA/28 V d.c.		5 × 10 <sup>6</sup>	–	10 <sup>8</sup>	–	5 × 10 <sup>6</sup>
1 A/28 V d.c.		–	–	4 × 10 <sup>7</sup>	–	–
10 mA/220 V a.c.		–	–	4 × 10 <sup>7</sup>	–	4 × 10 <sup>6</sup>

#### 4 Coil characteristics (at 23° C)

Contact form	Coil voltage V d.c.	Relay part number*	Coil resistance Ω (±10%)	Must operate voltage max. V d.c.	Must release voltage min. V d.c.	Operate time max. ms	Release time** max. ms
<b>Dry contacts</b>							
1 A Low Profile	5	HE721A04□□	500	3.80	0.8	0.5	0.5
	5	HE721A05□□	380	3.50	1.0		
	12	HE721A12□□	530	8.00	2.0		
	15	HE721A15□□	2000	11.50	3.0		
1 A Standard	5	HE721A05□□	500	3.75	0.5	0.5	0.5
	12	HE721A12□□	1000	8.00	1.0		
	24	HE721A24□□	2150	16.00	2.0		
2 A	5	HE722A05□□	200	3.75	0.5	0.5	0.5
	12	HE722A12□□	500	8.00	1.0		
	24	HE722A24□□	2150	16.00	2.0		
1 B	5	HE721B05□□	200	3.75	0.5	0.5	0.5
	12	HE721B12□□	500	8.00	1.0		
	24	HE721B24□□	2000	16.00	2.0		
1 C	5	HE721C05□□	200	3.75	0.5	1.5	1.5
	12	HE721C12□□	500	8.00	1.0		
	24	HE721C24□□	2000	16.00	2.0		

#### Hg-wetted contacts – 30° from vertical

1 A	5	HE731A05□□	55	3.75	0.5	2.0	2.0
	12	HE731A12□□	300	9.00	1.0		
	24	HE731A24□□	1100	18.00	2.0		

#### Hg-wetted contacts – all position

1 A	5	HE741A05□□	55	3.75	0.5	3.0	3.0
	12	HE741A12□□	300	9.00	1.0		
	24	HE741A24□□	1150	18.00	2.0		

#### High voltage hold-off contacts

1 A	5	HE751A05□□	500	3.75	0.5	0.5	0.5
	12	HE751A12□□	1000	8.00	1.0		
	24	HE751A24□□	2150	16.00	2.0		

\* Please specify the missing digits □ of relay part number as shown in the ordering guide.

\*\* Release time will be increased with diode option.

**Note:** Electrostatic shield not available on low profile versions.

On most types magnetic shield option is available. For details contact HAMLIN sales office.

#### 5 Connections (viewed from above) – 2.54 mm (0.1") grid

1 Form A, Standard and Option 5, HE721A, HE 731A, HE 741A	1 Form A, Option 1 and 6, HE 721A	2 Form A HE722A	1 Form B HE721B	1 Form C HE721C	1 Form A HE751A	1 Form C HE721E	1 Form C HE721R

UP indicates mounting position for relays with Hg-wetted contact type 3.

ES = indicates pin for electrostatic shield

#### 6 Ordering guide

Cont. type number	Number of contacts	Contact form	Nominal voltage	Package version	Pin configuration
2, 3, 4, 5	1 – 2	A = Form A B = Form B C = Form C E = Form C common pin: 14 R = Form C common pin: 1	04* = 5 V d.c. 500Ω coil 05 = 5 V d.c. 12 = 12 V d.c. 24 = 24 V d.c.	0 = standard 1 = with diode 2 = with electrostatic shield 3 = with diode and electrostatic shield	0 = High profile, standard wiring 1 = High profile Option 1 wiring 5 = Low profile Option 5 wiring 6 = Low profile Option 6 wiring

\* This code is only valid for low profile version (option 5 and 6).