

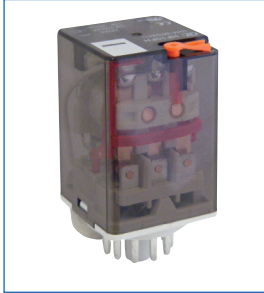


## POWER RELAYS

### HF10FH Series

### 10 Amp Double Pole Changeover Relay

#### AC Operating Coils with 2 Form C contacts



| Product Code   | Coil Voltage | Pick up Max VAC | Drop off Max VAC | Max VAC | Coil $\Omega \pm 10\%$ |
|----------------|--------------|-----------------|------------------|---------|------------------------|
| HF10FH006A2ZDT | 6 VAC        | 4.80            | 1.80             | 7.20    | 3.9                    |
| HF10FH012A2ZDT | 12 VAC       | 9.60            | 3.60             | 14.4    | 16.3                   |
| HF10FH024A2ZDT | 24 VAC       | 19.2            | 7.20             | 28.8    | 70                     |
| HF10FH048A2ZDT | 48 VAC       | 38.40           | 14.4             | 57.6    | 315                    |
| HF10FH120A2ZDT | 120 VAC      | 88.0            | 36.0             | 132     | 1600                   |
| HF10FH230A2ZDT | 230 VAC      | 176.0           | 72.0             | 264     | 6800                   |

- 10 Amp switching capacity
- 2, 3C configurations
- AC & DC coil versions
- High electrical endurance (min 100,000 operations)
- Contact material AgSnO<sub>2</sub>. Gold Plated version available on request.
- RoHS Compliant
- Industry standard 8 or 11 round plug in terminals
- Din Rail Plug in Sockets available see page 222-225
- Dust protected as standard
- Smoke cover type
- Approvals UL & CUR
- With Lockable push to test button, flag indicator and built in LED as standard

Approved by:



#### AC Operating Coils with 3 Form C contacts

| Product Code   | Coil Voltage | Pick up Max VAC | Drop off Max VAC | Max VAC | Coil $\Omega \pm 10\%$ |
|----------------|--------------|-----------------|------------------|---------|------------------------|
| HF10FH006A3ZDT | 6 VAC        | 4.80            | 1.80             | 7.20    | 3.9                    |
| HF10FH012A3ZDT | 12 VAC       | 9.60            | 3.60             | 14.4    | 16.3                   |
| HF10FH024A3ZDT | 24 VAC       | 19.2            | 7.20             | 28.8    | 70                     |
| HF10FH048A3ZDT | 48 VAC       | 38.40           | 14.4             | 57.6    | 315                    |
| HF10FH120A3ZDT | 120 VAC      | 88.0            | 36.0             | 132     | 1600                   |
| HF10FH230A3ZDT | 230 VAC      | 176.0           | 72.0             | 264     | 6800                   |

#### DC Operating Coils with 2 Form C contacts

| Product Code   | Coil Voltage | Pick up Max VDC | Drop off Max VDC | Max VDC | Coil $\Omega \pm 10\%$ |
|----------------|--------------|-----------------|------------------|---------|------------------------|
| HF10FH006D2ZDT | 6 VDC        | 4.80            | 0.60             | 7.20    | 23.5                   |
| HF10FH012D2ZDT | 12 VDC       | 9.60            | 1.20             | 14.4    | 95                     |
| HF10FH024D2ZDT | 24 VDC       | 19.2            | 2.40             | 28.8    | 430                    |
| HF10FH048D2ZDT | 48 VDC       | 38.40           | 4.80             | 57.6    | 1630                   |
| HF10FH060D2ZDT | 60 VDC       | 48.0            | 6.00             | 72      | 1920                   |
| HF10FH110D2ZDT | 110 VDC      | 88.0            | 11.0             | 132     | 7300                   |

#### DC Operating Coils with 3 Form C contacts

| Product Code   | Coil Voltage | Pick up Max VDC | Drop off Max VDC | Max VDC | Coil $\Omega \pm 10\%$ |
|----------------|--------------|-----------------|------------------|---------|------------------------|
| HF10FH006D3ZDT | 6 VDC        | 4.80            | 0.60             | 7.20    | 23.5                   |
| HF10FH012D3ZDT | 12 VDC       | 9.60            | 1.20             | 14.4    | 95                     |
| HF10FH024D3ZDT | 24 VDC       | 19.2            | 2.40             | 28.8    | 430                    |
| HF10FH048D3ZDT | 48 VDC       | 38.40           | 4.80             | 57.6    | 1630                   |
| HF10FH060D3ZDT | 60 VDC       | 48.0            | 6.00             | 72      | 1920                   |
| HF10FH110D3ZDT | 110 VDC      | 88.0            | 11.0             | 132     | 7300                   |



# POWER RELAYS

## HF10FH Series

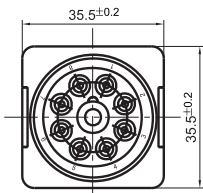
| Contact Data                |                       |
|-----------------------------|-----------------------|
| Contact Arrangement         | 2C & 3C               |
| Contact Rating (Res. Load)  | 10A 250VAC/30VDC      |
| Max. Switching Voltage      | 240 VAC/30 VDC        |
| Max. Switching Current      | 10A                   |
| Max. Switching Power        | 300W/2500VA           |
| Mechanical Life             | 10,000,000 Operations |
| Electrical Life             | 100,000 Operations    |
| Contact Materials available | AgSnO <sub>2</sub>    |

| Relay Characteristics                   |                         |
|---|-------------------------|
| Initial Insulation Resistance           | 500M Ohms (500 VDC)     |
| Dielectric Strength:                    | Between Coil & Contacts |
|   | Between Contact Sets    |
| Surge Voltage between Coil and Contacts | 2.5KV (2X10 $\mu$ s)    |
| Operate Time at nominal                 | Max. 25ms               |
| Release Time at nominal                 | Max. 25ms               |
| Shock Resistance:                       | Functional              |
|   | Destructive             |
| Vibration Resistance                    | 10 to 55 Hz 1.5mm DA    |
| Humidity                                | 98%RH 40°C              |
| Ambient Temperature                     | -40°C to +55°C          |
| Unit Weight                             | 85g Approx              |

### Outline Dimensions and Wiring Diagram

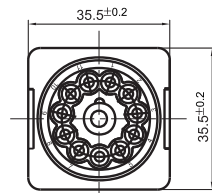
#### Outline Dimensions

2 Form C

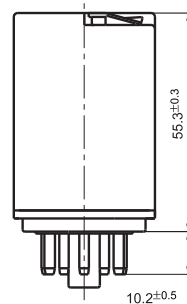
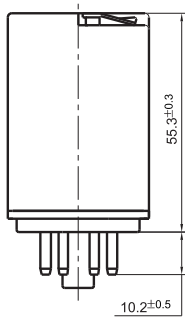


(Bottom view)

3 Form C

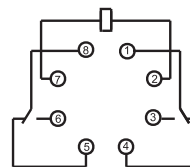


(Bottom view)

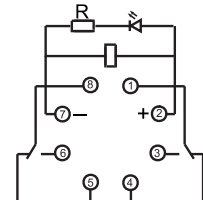


#### Wiring Diagram (Bottom view)

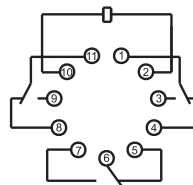
2 Form C



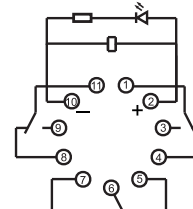
2 Form C (With LED)



3 Form C



3 Form C (With LED)



**Note (1)** In case of no tolerances shown in the outline dimension then: Outline dimension  $\leq 1$ mm tolerance should be  $\pm 0.2$ mm.  
Outline dimension  $\geq 1$ mm and  $\leq 5$ mm tolerance should be  $\pm 0.3$ mm.  
Outline dimension  $\geq 5$ mm tolerance should be  $\pm 0.4$ mm.