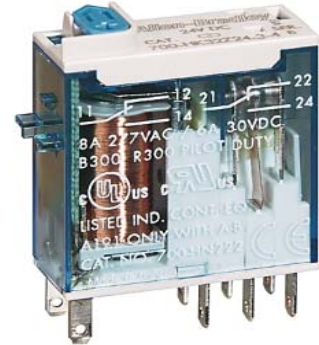


Product Details and Certifications

Cross Reference RA Part Number: 700-HK32A1 B

 Product: **700-HK32A1**

Description: 700-HK General Purpose Slim Line Relay,
8 Amps Contact, DPDT, 120V 50/60 Hz



Representative Photo Only (actual product may vary based on configuration sections)

CONTROL RELAY DATA

| | |
|-----------------------|------------------------------|
| Bulletin Number | 700-HK General Purpose Relay |
| Contact Rating | 8A Contact (Slim Line Relay) |
| Contact Configuration | DPDT Contact Arrangement |
| Coil Voltage | 120V 50/60Hz |
| Relay Options | No Additional Options |

CERTIFICATIONS AND APPROVALS

UL

CSA

CE

For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/IFRAME/index.htm>



| Bulletin No. | 700-HC | 700-HK | 700-HL | 700-HP |
|--|---|---|--|---|
| Type | Interposing/Isolation Relay | Interposing/Isolation Relay | Interposing/Isolation Relay | Interposing/Isolation Relay |
| Features | <ul style="list-style-type: none"> Blade-style terminals Standard ON/OFF flag indicator Electrical schematic on face Clear cover for visual inspection Optional push-to-test and manual override Optional LED | <ul style="list-style-type: none"> Optional pilot light Retainer clip (comes with socket) Low switching capacity Push-to-test & manual override | <ul style="list-style-type: none"> Ideal for PLC Interfaces Built-in Coil Surge Protection Fully Assembled Relay/Sockets Standard LED Relay or Solid-state Output Optional: Leakage Current Suppression Solution | <ul style="list-style-type: none"> PCB "Pin Style" mounting 5 mm pin spacing |
| Contact Ratings | | | | |
| Contact Form | DPDT, 4PDT | SPDT, DPDT | SPDT 1 N.O. (SSR) | DPDT |
| Contact Type | Single | Single | Single | Single |
| Contact Material | AgNi, AgNi + Gold | AgNi, AgNi + Gold | AgSnO | AgNi, AgNi + Gold |
| Max. operating current under resistive load | 10 A (DPDT) 7 A (4PDT) | 8 A (DPDT), 16 A (SPDT) | 6 A (SPDT), 2 A (SSR DC output), 1 A (SSR AC output) | 8 A |
| Min. permissible load | 10V, 10 mA (Gold), 5V, 10 mA or 25V, 2 mA (Silver) | 5V 60 mA (Silver), 5V 10 mA (Gold) | 12V 6 mA (72 mW) Silver 8V, 2.5 mA (20 mW) Gold | 5V 5 mA (50 mW) Gold, 5V 5 mA (300 mW) Silver |
| Coil Ratings | | | | |
| Coil Voltage | AC: 6, 12, 24, 120, 240V DC: 6, 12, 24, 48, 110V | AC: 6, 12, 24, 120, 240V DC: 6, 12, 24, 48, 110V | AC: 12, 24, 48, 110, 120, 230, 240V DC: 12, 24, 48, 125, 230, 240V | AC: 6, 12, 24, 120, 240V DC: 6, 12, 24, 48, 110V |
| Permissible Coil Voltage Variation | 80...110% of Nominal Voltage at 50 Hz 80...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC | 80...110% of Nominal Voltage at 50 Hz 80...110% of Nominal Voltage at 60 Hz 73...110% of Nominal Voltage at DC | 85...110% of Nominal Voltage at 50 Hz 85...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC | 80...110% of Nominal Voltage at 50 Hz 80...110% of Nominal Voltage at 60 Hz 73...150% of Nominal Voltage at DC |
| Electrical Ratings | | | | |
| Dielectric Withstand Voltage | Pole-to-pole: 1000V Contact-to-coil: 2000V Contact-to-frame: 2000V | Pole-to-pole: 1500V AC Contact-to-coil: 1500V AC Contact-to-frame: 1500V AC | Pole-to-pole: 1000V AC Contact-to-coil: 4000V Contact-to-frame: 1500V | Pole-to-pole: 2000V Contact-to-coil: 5000V |
| Electric Service Life (cycles) | 100 000 minimum | 100 000 minimum | 100 000 minimum | 100 000 minimum |
| Reference | | | | |
| Certifications | CE, cULus, cURus, CSA, Lloyds | CE, UL, UR, CSA | CE, cURus, cULus, ABS | CE, cULus, cURus, CSA, Lloyds |
| Socket Type | 700-HN103, 700-HN128, 700- HN104 | 700-HN121, -HN221 700-HN122, -HN222 700-HN223, -HN224 | — | 700-HN123, -HN230 |
| Page Number | page 9-34 | page 9-39 | page 9-45 | page 9-58 |





Bulletin 700-HK — “Slim Line” Relay

- 8 A/16 A contact ratings
- DPDT/SPDT
- Plug-in blade-style terminals
- Retainer clip with sockets
- Options: LED, push-to-test and manual override, socket-mounted surge suppressor module, or timer module
- Standard ON/OFF flag indicator
- Relay faceplate accepts optional Bulletin 1492 snap-in markers
- Choice of standard silver/nickel contacts or silver/nickel with gold plated contacts
- Maximum duty version available

Table of Contents


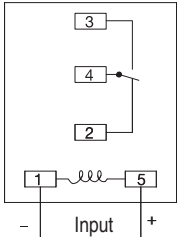
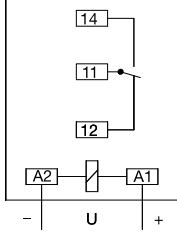

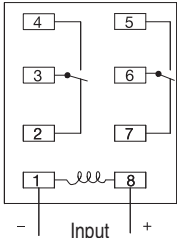
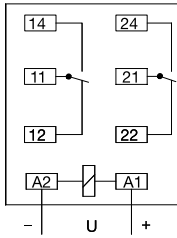
Product Selection this page
 Accessories..... 9-40
 Specifications..... 9-44
 Approximate Dimensions..... 9-43

Standards Compliance and Certifications

See Specification table in this section, page 9-42.

Product Selection

Slim Line Relay with Plug-in Quick Connect Terminations

| | Description | Contact Rating | Wiring Diagrams | | Coil Voltage | Cat. No.*‡ |
|---|---|----------------|--|---|-------------------|----------------------|
| | | | U.S./Canada | International | | |
|  Bulletin 700-HK SPDT | SPDT 1-Pole 1 Form C AgNi Contacts Socket | 16 A |  - Input + |  - U + | 6V AC | 700-HK36A06 |
| | | | | | 12V AC | 700-HK36A12 |
| | | | | | 24V AC | 700-HK36A24 |
| | | | | | 120V AC | § 700-HK36A1 |
| | | | | | 240V AC | § 700-HK36A2 |
| | | | | | 6V DC | 700-HK36Z06 |
| | | | | | 12V DC | 700-HK36Z12 |
| | | | | | 24V DC | § 700-HK36Z24 |
| | | 48V DC | 700-HK36Z48 | | | |
| | | | | 110V DC | 700-HK36Z1 | |
|  Bulletin 700-HK DPDT | DPDT 2-Pole 2 Form C AgNi Contacts Socket | 8 A |  - Input + |  - U + | 6V AC | 700-HK32A06 |
| | | | | | 12V AC | 700-HK32A12 |
| | | | | | 24V AC | 700-HK32A24 |
| | | | | | 120V AC | 700-HK32A1 |
| | | | | | 240V AC | 700-HK32A2 |
| | | | | | 6V DC | 700-HK32Z06 |
| | | | | | 12V DC | 700-HK32Z12 |
| | | | | | 24V DC | 700-HK32Z24 |
| | | 48V DC | 700-HK32Z48 | | | |
| | | | | 110V DC | 700-HK32Z1 | |

* LED Option: Add suffix (-4) to the selected Bulletin 700-HK relay Cat. No. except for the 240V AC units, add (-4L).
 † For AgNi Contact with Gold Plating: Replace “3” with “X” in Cat. No. For example, if Cat. No. 700-HK36A1 is required with Gold Plating, the new catalog number is 700-HKX6A1.
 ‡ Push-to-Test + Manual Override + LED Option: Add suffix (-3-4) to the selected 700-HK Relay catalog number, except for the 240V AC Units, add (-3-4L).
 § For high inductive, Tungsten, or Capacitive load applications, replace the “3” with a “M” in the catalog number. Only available in a SPDT configuration and with 24V DC, 120V AC or 240V AC coil voltages.



Bulletin 700-HK
Interposing/Isolation Relays
Specifications



| | | Cat. No. 700-HK... | | | |
|---|--|--|--|---|---|
| Electrical Ratings | | | | | |
| Rated Thermal Current (I_{th}) | | 1-Pole, 1 CO, SPDT — 16 A | | 2-Pole, 2 CO, DPDT — 8 A | |
| Rated Insulation Voltage (U) | | 250V IEC, 300V UL/CSA | | | |
| Contacts | Inductive V AC | 120V AC | AC-15, 6.2 A B300 Pilot Duty, 3 A A300 (700-HKM_) 1/3 Hp (0.24 kW) 1-phase | 120V AC | AC-15, 2.9 A B300 Pilot Duty, 3.0 A 1/4 Hp (0.18 kW), 1-phase |
| | | 240V AC | AC-15, 3.1 A B300 Pilot Duty, 1.5 A A300 (700-HKM_) 3/4 Hp (0.55 kW), 1-phase | 240V AC | AC-15, 1.4 A B300 Pilot Duty, 1.5 A 1/2 Hp (0.37 kW), 1-phase |
| | | 230V AC | 0.55 kW, 1-phase | 230V AC | 0.37 kW, 1-phase |
| | Inductive V DC | 24V DC | DC-13, 5.0 A | 24V DC | DC-13, 3.0 A |
| | | 125V DC | DC-13, 0.2 A R300 Pilot Duty, 0.22 A | 125V DC | DC-13, 0.2 A R300 Pilot Duty, 0.22 A |
| | | 250V DC | DC-13, 0.1 A R300 Pilot Duty, 0.11 A | 5 A, 250V AC | DC-13, 0.1 A R300 Pilot Duty, 0.11 A |
| | Resistive | 230V AC | AC-1, 16 A | 230V AC | AC-1, 8 A |
| | | 277V AC | 16 A, General Use | 277V AC | 8 A, General Use |
| | Make, Break & Continuous | 30V DC | DC-1, 12 A 10 A, Resistive | 30V DC | DC-1, 6 A 6 A, Resistive |
| Min. Permissible Contact Ratings | | 300 mW (5V/60 mA or 60V/5 mA) for AgNi Contacts (700-HK3_) 50 mW (5V/10 mA or 25V/2 mA) for AgNi + Gold Contacts (700-HKX_) 500 mW (100V/5 mA or 5V/100 mA) for AgSnO ₂ Contacts (700-HKM_) | | | |
| Permissible Coil Voltage Variation | Pickup: holding Voltage: Must Dropout Voltage: | 80...110% of Nominal Voltage at 50/60 Hz, 73...110% of Nominal Voltage at DC 80% of Nominal V AC at 50/60 Hz, 40% of Nominal V DC 20% of Nominal V AC at 50/60 Hz, 10% Nominal V DC | | | |
| Power Consumption | | 1.2V A (V AC Coils), 0.5 W (V DC Coils) | | | |
| Coil Voltages | | See Overview/Product Selection | | | |
| Design Specification/Test Requirements | | | | | |
| Dielectric Withstand Voltage | Between Open Contacts (VRMS) | 1000V AC | | | |
| | Contact to Coil (VRMS) | 1600V AC | | | |
| Mechanical | | | | | |
| Degree of Protection | | IP 20 (guarded terminal sockets), RT II — Flux-proof (Relay) | | | |
| Mechanical Life Operations | | 10 x 10 ⁶ | | | |
| Electrical Life Cycles | | 230V AC, 16 A Resistive: 100 000 min. 277V AC, 16 A Resistive: 30 000 min. 30V DC, 10 A Resistive: 30 000 min. B300, R300, Hp (kW): 6000 min. A300 (700-HKM_): 100,000 min. | | 230V AC, 8 A Resistive: 100 000 min. 277V AC, 8 A Resistive: 30 000 min. 30V DC, 6 A Resistive: 30 000 min. B300, R300, Hp (kW): 6000 min. | |
| Switching Frequency | | Mechanical: 18,000 cycles/hr. Electrical: 900 cycles/hr. | | | |
| Operating Time at Nominal Voltage at 20 °C (ms) | Pickup | 15 ms max. | | | |
| | Dropout | 5 ms max. | | | |
| Vibration | Operational | 10...2000 Hz, 0.76 mm (0.03 in.) 2.5 G | | | |
| | Non-Operational | 10...2000 Hz, 0.76 mm (0.03 in.) 5.0 G | | | |
| Shock | Operational | 15 G | | | |
| | Non-Operational | 50 G | | | |
| Environmental | | | | | |
| Temperature | Operating | -40...+70 °C (-40...+158 °F) | | | |
| | Storage | -40...+85 °C (-40...+185 °F) | | | |
| Altitude | | 2000 m (6560 ft) | | | |
| Construction | | | | | |
| Insulating Material | | Molded High Dielectric Material | | | |
| Enclosure | | Transparent Dust Cover | | | |
| Contact Material | | 700-HK3_: Silver nickel (AgNi); 700-HKX_: Silver Nickel + Gold Plating (AgNi + Au); 700-HKM_: Silver Tin Oxide (AgSnO ₂) | | | |
| Terminal Markings on Socket | | In accordance with EN 50005 | | | |
| Sockets | Screw Terminal | 1-Pole | | 2-Pole | |
| | | 700-HN121 (10 A @ 70 °C) 700-HN221 (16 A @ 50 °C, 12 A @ 70 °C) | | 700-HN122 (2 x 5 A @ 70 °C) 700-HN222 (2 x 8 A @ 70 °C) | |
| | Spring Clamp (Available September 2006) | 700-HN223 (15 A @ 40 °C with 2 conductors per terminal) (10 A @ 70 °C with 1 conductor per terminal) | | 700-HN224 (2 x 8 A @ 70 °C) | |
| Approvals | | | | | |
| Certifications | | CSA Certified, File 75088, UL Recognized, File E3125 Guide NLDX2/NLCX8, cULus Listed with Allen-Bradley sockets (File No. 3125 Guide NLDX/NLDX7), CE Marked | | | |
| Standards | | EN61810-1, CSA 22.2 No. 14, UL 508 | | | |

