
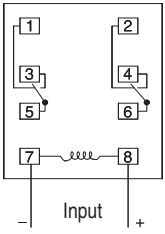
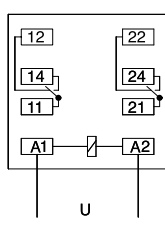
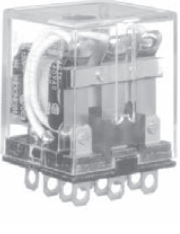
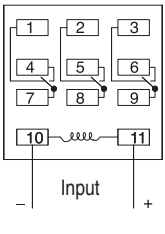
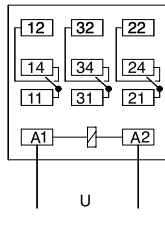
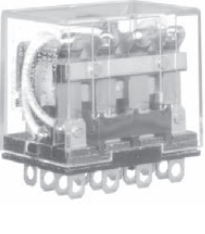
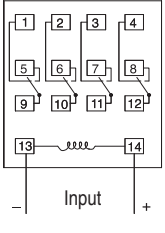
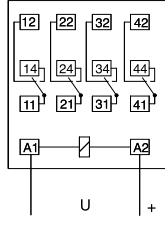
	<p><b>Bulletin 700-HF — Square Base Relay</b></p> <ul style="list-style-type: none"> <li>• 10 A contact rating</li> <li>• DPDT, 3PDT, 4PDT</li> <li>• Plug-in quick connect solder terminals</li> <li>• Options: LED, push-to-test operator</li> </ul>	<p><b>Table of Contents</b></p> <p>Product Selection ..... this page</p> <p>Accessories..... 9-30</p> <p>Specifications . . . . . 9-31</p> <p>Approximate Dimensions..... 9-32</p> <p><b>Standards Compliance and Certifications</b></p> <p>See Specification table in this section, page 9-31 .</p>
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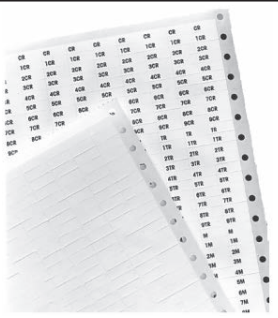
**Product Selection**  
**Square Base with Quick Connect/Solder Style Terminations**

	Description	Contact Rating	Wiring Diagrams		Coil Voltage	Cat. No. *❖
			U.S./Canada	International		
	DPDT 2-pole 2 Form C AgCdO Contacts  Socket	10 A			6V AC	700-HF32A06
			700-HN116	700-HN116	12V AC	700-HF32A12
					24V AC	700-HF32A24
					120V AC	700-HF32A1
					240V AC	700-HF32A2
					6V DC	700-HF32Z06
					12V DC	700-HF32Z12
					24V DC	700-HF32Z24
					48V DC	700-HF32Z48
					110V DC	700-HF32Z1
	3PDT 3-pole 3 Form C AgCdO Contacts  Socket	10 A			6V AC	700-HF33A06
			700-HN138	700-HN138	12V AC	700-HF33A12
					24V AC	700-HF33A24
					120V AC	700-HF33A1
					240V AC	700-HF33A2
					6V DC	700-HF33Z06
					12V DC	700-HF33Z12
					24V DC	700-HF33Z24
					48V DC	700-HF33Z48
					110V DC	700-HF33Z1
	4PDT 4-pole 4 Form C AgCdO Contact  Socket	10 A			6V AC	700-HF34A06
			700-HN139	700-HN139	12V AC	700-HF34A12
					24V AC	700-HF34A24
					120V AC	700-HF34A1
					240V AC	700-HF34A2
					6V DC	700-HF34Z06
					12V DC	700-HF34Z12
					24V DC	700-HF34Z24
					48V DC	700-HF34Z48
					110V DC	700-HF34Z1

\* Pilot Light Option: Add suffix (-4) to the selected Bulletin 700-HF Relay Cat. No. except for the 240V AC units, add (-4L).  
 ❖ Manual Operator and LED Option: Add suffix (-1-4) to the selected Bulletin 700-HF Relay Cat. No., except for the 240V AC units, add (-1-4L).






Bulletin 700-HF  
**General Purpose Relays**  
 Accessories

Accessories

	Description	Pkg. Quantity	Cat. No.
	<b>Pre-Printed Identification Tags</b> — contains 10 sheets of pre-printed and blank tags. Each sheet contains 13 sets of the markings CR...9CR, TR...9TR, M...9M, F, R, 1S, and 117 blank tags. Tags are peel-off with sticky backing for easy placement on relays.	10	700-N40
	<b>Blank Identification Tags</b> — contains 10 sheets of blank identification tags for customer specialized printing. Each sheet contains 546 blank tags. Tags are peel-off with sticky backing for easy placement on relays.	10	700-N41

\* Performance Data – See this catalog, Important- 3.

⊛ For pre-printed marker cards, turn to the following 1492 sections of this publication: 1492-MS5X12\_, 1492-MS6X9\_, 1492-MS8X9\_, 1492-MS8X12\_, 1492-MP\_.

	Description	Pkg. Qty.	Cat. No.
 <i>Cat. No 700-HN116</i>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting</b> 8-blade miniature socket for use with DPDT HF relays.	10	<b>700-HN116</b>
 <i>Cat. No. 700-HN138</i>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting</b> 11-blade socket for use with 3PDT Bulletin 700-HF relays.	1	<b>700-HN138</b>
 <i>Cat. No. 700-HN139</i>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting, Guarded Terminal Construction</b> 14-blade socket for use with 4PDT Bulletin 700-HF relays.	1	<b>700-HN139</b>
 <i>Cat. No 199-DR1</i>	<b>DIN (#3) symmetrical hat rail</b> 35 x 7.5 x 1 m	10	<b>199-DR1</b>
 <i>Sample Retainer Clips</i>	<b>Retainer Clip for Cat. Nos. 700-HN103, -HN104 and -HN128 Sockets with 700-HC Relays and Cat. Nos. 700-HN116 Sockets with Bulletin 700-HF DPDT Relays</b> ‡ Secures relay in socket. Order must be for 10 clips or multiples of 10.	10	<b>700-HN114</b>
	<b>Retainer Clip for Cat. Nos. 700-HN138 and -HN139 Sockets with Bulletin 700-HF 3PDT and 4PDT Relays</b> ‡ Secures relay in socket. Order must be for 10 clips or multiples of 10.	10	<b>700-HN140</b>

‡ Bulletin 700-HF Square Base Relay, Socket, and Retainer Clip Reference

Relay Type	Cat. No. Socket	Cat. No. Retainer Clip
700-HF32	700-HN116	700-HN114
700-HF33	700-HN138	700-HN140
700-HF34	700-HN139	700-HN140

**Specifications\***

Cat. No. 700-HF...				
Electrical Ratings				
Pilot Duty Rating		C300		
Rated Thermal Current ( $I_{th}$ )		10 A		
Rated Insulation Voltage (U)		250V IEC, 300 UL/CSA		
Contacts	Inductive	<b>Make</b>	<b>Break</b>	<b>Hp</b>
		►][◄	◄][►	
	120V AC	29 A	2.9 A	1/2
	240V AC	14 A	1.4 A	1/3
	General Purpose	10 A, 240V AC		
Resistive		10 A, 30V DC		
Min. Low Energy Permissible Load		5V, 100 mA		
Permissible Coil Voltage Variation		85...110% of Nominal Voltage at 50 Hz 85...110% of Nominal Voltage at 60 Hz 80...110% of Nominal Voltage at DC		
Coil Consumption ±10%	AC Coils		<b>50 Hz</b>	<b>60 Hz</b>
		Inrush	2.4 VA	2.1 VA
		Sealed	1.6 VA	1.4 VA
	DC Coils	0.9 W (Bul. No. 700-HF32) 1.4 W (Bul. No. 700-HF33) 1.5 W (Bul. No. 700-HF34)		
Max. Allowable Leakage		25% of VA		
		10% of W		
Design Specification/Test Requirements				
Dielectric Withstand Voltage	Pole-to-Pole		1500V AC	
	Contact to Pole		1500V AC	
	Contact to Frame		1500V AC	
Mechanical				
Degree of Protection		Open Type (Sockets)		
Mechanical Life Operations		30 x 10 <sup>6</sup>		
Switching Frequency Operations		3600/hr		
Coil Voltages		See Product Selection		
Operating Time at Nominal Voltage at 20 °C	Pickup	15 ms		
	Dropout	15 ms		
Maximum Operating Rate		4 Ops/s		
Shock (Mechanical Durability)		100 G		
Shock (Malfunction Durability)		20 G		
Environmental				
Temperature	Operating	-30...+55 °C (-22...+131 °F)		
	Storage	-55...+85 °C (-67...+185 °F)		
Altitude		2000 m (6560 ft)		
Construction				
Insulating Material		Molded High-Dielectric Material		
Enclosure		Transparent Dust Cover		
Contact Material		Silver Cad. Ox.		
Terminal Markings on Socket		In accordance with EN50 0005		
Sockets		8-Blade Socket (DPDT) Cat. No. 700-HN116 11-Blade Socket (3PDT) Cat. No. 700-HN138 14-Blade Socket (4PDT) Cat. No. 700-HN139		
Certifications		CSA Certified (File No. 75088), UL Recognized (File No. E3125, Guide NLDX 2), CE Marked		
Standards		UL 508, CSA 22.2 No. 14, EN/IEC 60255-1		

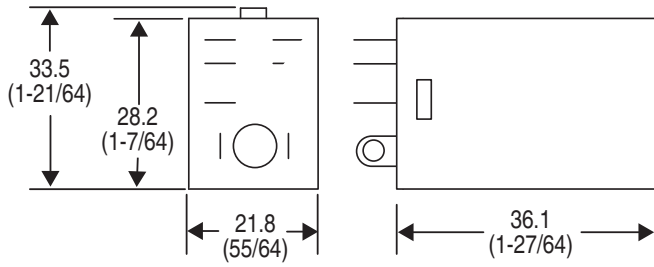
\* Performance Data – See this catalog, Important- 3.



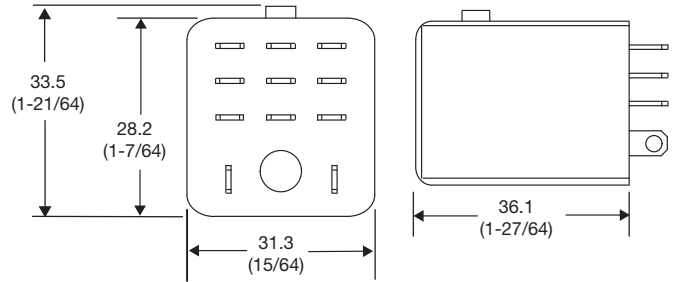
Bulletin 700-HF  
**General Purpose Relays**  
 Approximate Dimensions

**Approximate Dimensions**

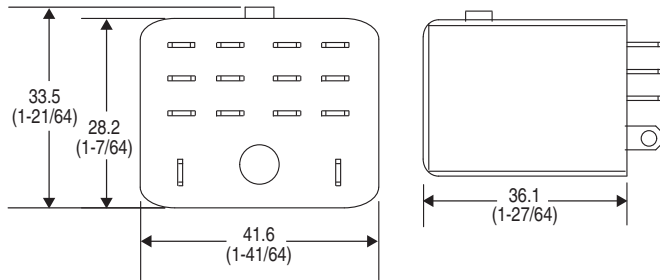
Approximate Dimensions are shown in millimeters (inches). Approximate Dimensions are not intended to be used for manufacturing purposes.



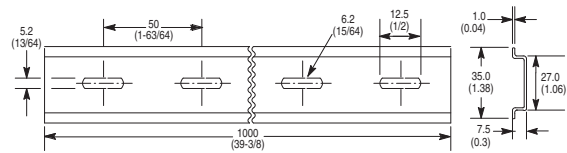
**Bulletin 700-HF Relay (DPDT)**



**Bulletin 700-HF (3PDT)**

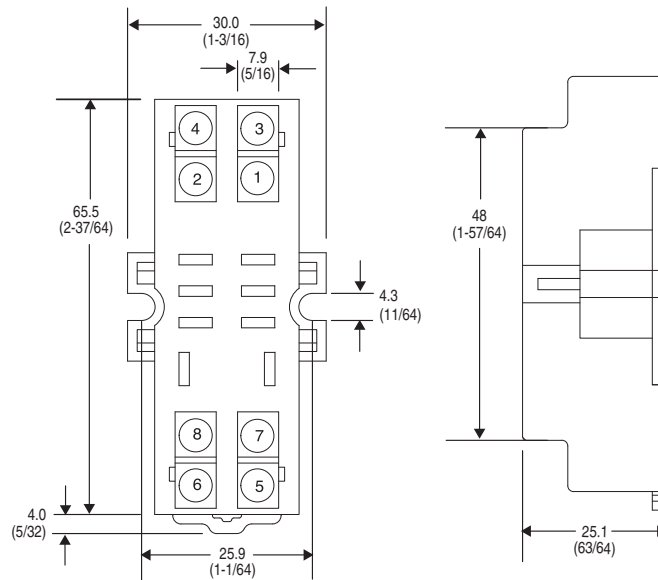


**Bulletin 700-HF (4PDT)**



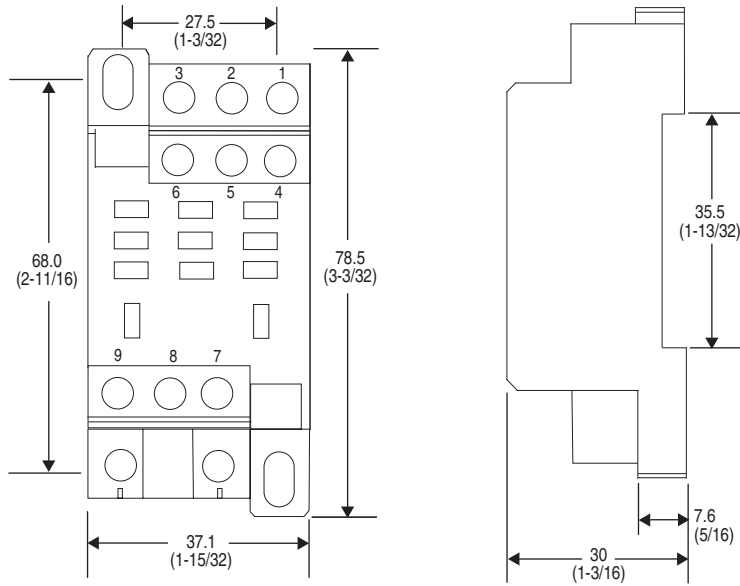
**Cat. No. 199-DR1 DIN Mounting Rail Series B**  
**Cat. No. 199-DR4 DIN Mounting Rail Series B Has No Mounting Holes**

Cat. No.	A	B	C	D	Approx. Shipping Wt.
199-DR1	35 (1-3/8)	27 (1-1/16)	7.5 (19/64)	1.02 (1/64)	1.85 kg (4.07 lb) (10/pkg)
199-DR4	35 (1-3/8)	27 (1-1/16)	15 (19/32)	2.3 (3/32)	3.68 kg (8 lb) (5/pkg)

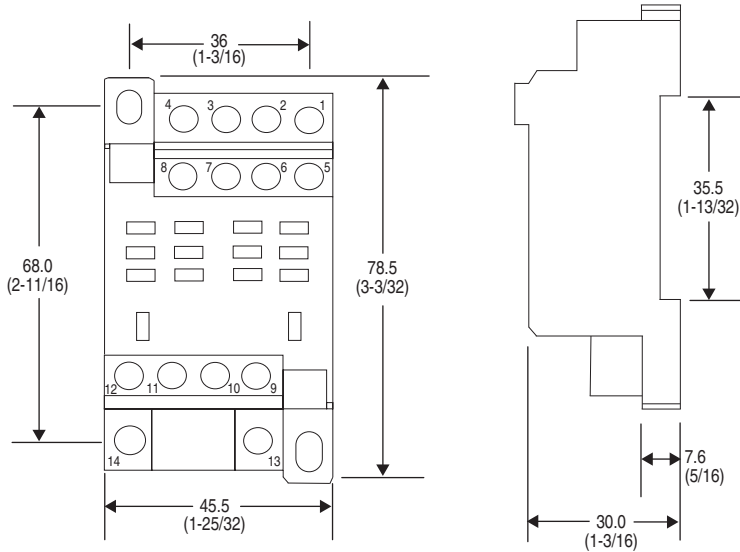


**Cat. No. 700-HN116**  
**Wire Size: 2 x 2.5 mm<sup>2</sup>**  
**Single Wire - Up to #12 AWG**  
**Double Wire - 2 x 2.5 mm<sup>2</sup> (#2-14 AWG... #2-20 AWG)**  
**(Either Solid or Stranded)**  
**Strip Length: 9 mm (3/8 in.) - Torque: 0.8 N•m (7 lb-in)**

Approximate Dimensions are shown in millimeters (inches). Approximate Dimensions are not intended to be used for manufacturing purposes.



**Cat. No. 700-HN138**  
**Wire Size: 2 x 2.5 mm<sup>2</sup>**  
**Single Wire – Up to #12 AWG**  
**Double Wire – 2 x 2.5 mm<sup>2</sup> (#2–14 AWG... #2–20 AWG)**  
**(Either Solid or Stranded)**  
**Strip Length: 9 mm (3/8 in.) – Torque: 0.8 N•m (7 lb-in)**



**Cat. No. 700-HN139**  
**Wire Size: 2 x 2.5 mm<sup>2</sup>**  
**Single Wire – Up to #12 AWG**  
**Double Wire – 2 x 2.5 mm<sup>2</sup> (#2–14 AWG... #2–20 AWG)**  
**(Either Solid or Stranded)**  
**Strip Length: 9 mm (3/8 in.) – Torque: 0.8 N•m (7 lb-in)**