




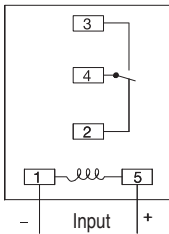
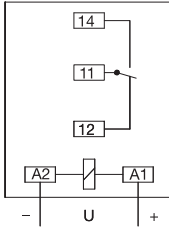

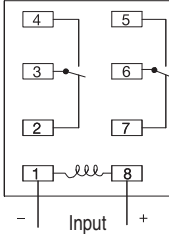
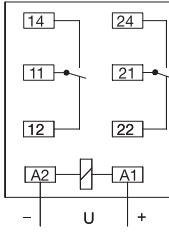
**Bulletin 700-HK — “Slim Line” Relay**

- 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

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**Product Selection**  
 Slim Line Relay with Plug-in Quick Connect Terminations





	Description	Contact Rating	Wiring Diagrams		Coil Voltage	Cat. No.*†‡
			U.S./Canada	International		
 <b>Bulletin 700-HK SPDT</b>	SPDT 1-Pole 1 Form C AgNi Contacts  Socket	16 A			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		
 <b>Bulletin 700-HK DPDT</b>	DPDT 2-Pole 2 Form C AgNi Contacts  Socket	8 A			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**  
 Accessories

Accessories

	Description	Pkg. Qty.	Cat. No.
 Cat. No. <b>700-HN121</b>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting</b> 5-blade miniature socket with 10 A rating for use with 1-pole, Bulletin 700-HK relays. Accepts forked lug conductors. Socket includes a retainer clip.	10	<b>700-HN121</b>
 Cat. No. <b>700-HN221</b>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting</b> 5-blade miniature socket with 16 A rating for use with 1-pole, Bulletin 700-HK relays. Retainer clips are packaged separately with socket. Guarded terminal construction and compatible with optional plug-in module accessories.	10	<b>700-HN221</b>
	<b>Spring Clamp Terminal Socket — Panel or DIN Rail Mounting</b> 5-blade miniature socket for use with 1-pole, Bulletin 700-HX relays.	10	<b>700-HN223</b>
 Cat. No. <b>700-HN122</b>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting</b> 8-blade miniature socket with 5 A rating for use with 2-pole, Bulletin 700-HK relays. Accepts forked lug conductors. This socket includes a retainer clip.	10	<b>700-HN122</b>
 Cat. No. <b>700-HN222</b>	<b>Screw Terminal Socket — Panel or DIN Rail Mounting</b> 8-blade miniature socket with 8 A rating for use with 2-pole, Bulletin 700-HK relays. Retainer clips are packaged separately with socket. Guarded terminal construction and compatible with optional plug-in module accessories.	10	<b>700-HN222</b>
	<b>Spring Clamp Terminal Socket — Panel or DIN Rail Mounting</b> 8-blade miniature socket for use with 2-pole Bulletin 700-HX relays.	10	<b>700-HN224</b>
 Cat. No. <b>700-HN226</b>	<b>Flange Mount Adapter</b> Used for panel-mounting bulletin 700-HK relays. Order must be for 10 adapters or multiples of 10.	10	<b>700-HN226</b>
 Cat. No. <b>700-HN227</b>	<b>35 mm Rail Mount Adapter</b> Mounts bulletin 700-HK relays to a 35 mm rail. Order must be for 10 adapters or multiples of 10.	10	<b>700-HN227</b>
 Cat. No. <b>700-HN229</b>	<b>Socket Retainer Clip and Ejection Lever</b> For use with 700-HN22, -HN222, -HN223, and -HN224 sockets. Orders must be for 10 clips or multiples of 10.	10	<b>700-HN229</b>

	Description	Pkg. Qty.	Cat. No.
	<b>Diode Surge Suppressor</b> Voltage Range: 6...220V DC used with 700-HN221, 700-HN222 sockets	10	<b>700-ADR</b>
	<b>Diode with LED Surge Suppressor</b> Voltage Range: 6...24V DC used with 700-HN221, 700-HN222 sockets	10	<b>700-ADL1R</b>
	<b>Diode with LED Surge Suppressor</b> Voltage Range: 28...60V DC used with 700-HN221, 700-HN222 sockets	10	700-ADL2R
	<b>Diode with LED Surge Suppressor</b> Voltage Range: 110...220V DC used with 700-HN221, 700-HN222 sockets	10	700-ADL3R
	<b>Varistor with LED Surge Suppressor</b> Voltage Range: 6...24V AC used with 700-HN221, 700-HN222 sockets	10	<b>700-AV1R</b>
	<b>Varistor with LED Surge Suppressor</b> Voltage Range: 110...240V AC used with 700-HN221, 700-HN222 sockets	10	<b>700-AV3R</b>
	<b>RC Surge Suppressor</b> Voltage Range: 6...24V AC/DC used with 700-HN221, 700-HN222 sockets	10	<b>700-AR1</b>
	<b>RC Surge Suppressor</b> Voltage Range: 110...240V AC/DC used with 700-HN221, 700-HN222 sockets	10	<b>700-AR2</b>
	<b>Timing Module</b> On-Delay or One-Shot selectable voltage range: 12...24V AC/DC used with sockets that accept plug-in accessory modules.	1	<b>700-AT3</b>
	<b>Timing Module</b> On-Delay or One-Shot selectable voltage range: 110...125V AC used with sockets that accept plug-in accessory modules.		700-AT3A1
	<b>Timing Module</b> On-Delay or One-Shot selectable voltage range: 230...240V AC used with sockets that accept plug-in accessory modules.		700-AT3A2
 <b>Cat. No. 700-HN180</b>	8-Way Jumper can be cut to required length. Rated 10 A – 250V. Used with 700-HN221, 700-HN222 sockets.	1	Red <b>700-HN180R</b>
			Grey <b>700-HN180G</b>
			Blue <b>700-HN180B</b>
 <b>Cat. No. 199-DR1</b>	<b>DIN (#3) symmetrical hat rail</b> 35 x 7.5 x 1 m	10	<b>199-DR1</b>
	<b>Relay Identification Snap-in Markers</b> Snap-in markers fit on top of product covers. The following are blank cards.	100	<b>1492-MS6X9</b>
			<b>1492-MS6X12</b>
			<b>1492-MS8X12</b>

Note: Spring clamp sockets are also available. Cat. No. 700-HN223 for Cat. No. 700-HK36 and Cat. No. 700-HN224 for 700-HK32.

**Bulletin 700-HK Slim Line Relay, Socket, and Retainer Clip Reference Chart**

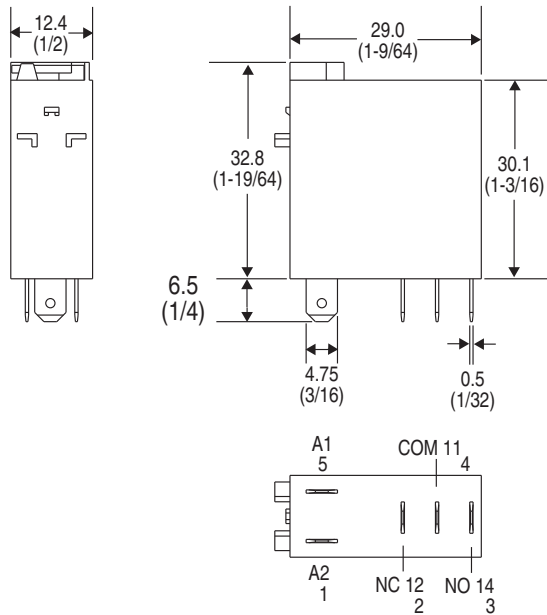
Relay Type	Socket Cat. No.	Retainer Clip Cat. No.
700-HK32	700-HN122, 700-HN222, 700-HN224	Provided
700-HK36	700-HN121, 700-HN221, 700-HN223	

**Bulletin 700-HK**  
**Interposing/Isolation Relays**  
**Specifications**

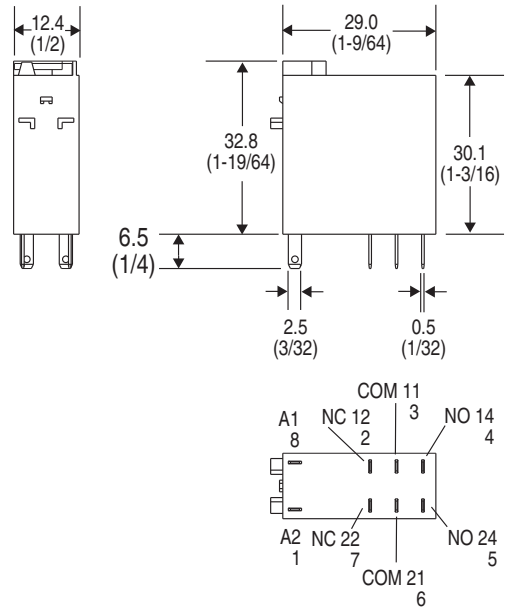
		Cat. No. 700-HK...			
		Electrical Ratings			
Rated Thermal Current ( $I_{th}$ )		1-Pole, 1 CO, SPDT — 16 A		2-Pole, 2 CO, DPDT — 8 A	
Rated Insulation Voltage (U)		250V IEC, 300V UL/CSA			
Contacts	Inductive V AC	120V AC	AC-15, 6.2 A B300 Pilot Duty, 3 A A300 (700-HKM_) 1/3 Hp (0.24 kW), 1-phase	120V 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 <sub>2</sub> 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 <sup>6</sup>			
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 <sub>2</sub> )			
Terminal Markings on Socket		In accordance with EN 50005			
Sockets	Screw Terminal	<b>1-Pole</b>		<b>2-Pole</b>	
		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			

**Approximate Dimensions**

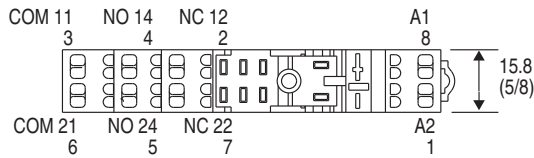
Approximate Dimensions are shown in millimeters (inches). Approximate Dimensions are not intended to be used for manufacturing purposes.



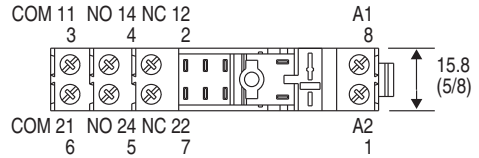
Cat. No. 700-HK36\_ (SPDT)



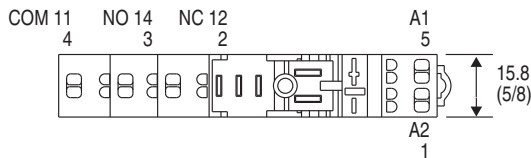
Cat. No. 700-HK32\_ (DPDT)



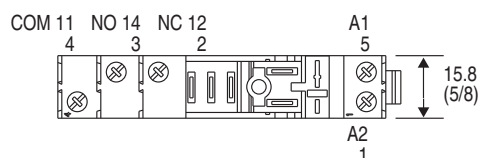
Cat. No. 700-HN224



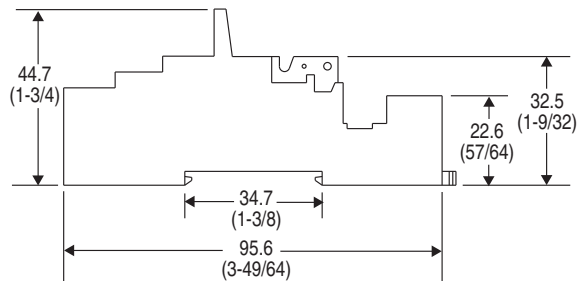
Cat. No. 700-HN222



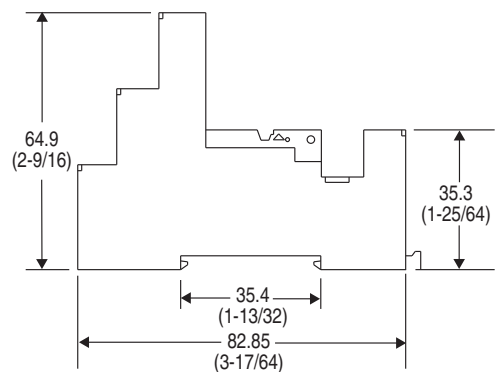
Cat. No. 700-HN223



Cat. No. 700-HN221



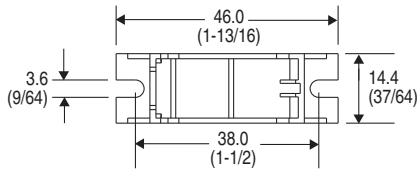
Cat. No. 700-HN223, 700-HN224  
 Wire Size: 0.2 mm<sup>2</sup>...1.5 mm<sup>2</sup> (#24 AWG...#14 AWG)  
 Either Solid or Stranded  
 Strip Length: 8 mm (5/16 in)



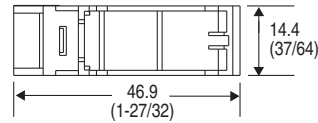
Cat. No. 700-HN221, 700-HN222  
 Wire Size: 0.2 mm<sup>2</sup>...2.5 mm<sup>2</sup> (#24 AWG...#12 AWG)  
 Either Solid or Stranded  
 Strip Length: 8 mm (5/16 in), Torque: 0.8Nm (7.0 lb.-in.)

**Bulletin 700-HK**  
**Interposing/Isolation Relays**  
**Approximate Dimensions**

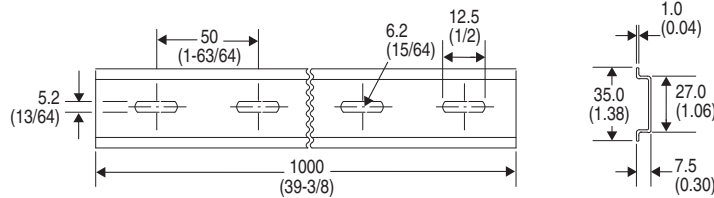
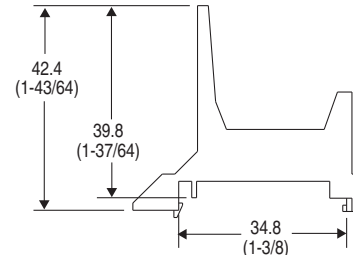
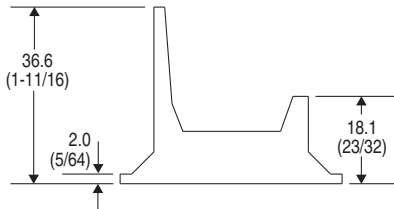
Approximate Dimensions are shown in millimeters (inches). Approximate Dimensions are not intended to be used for manufacturing purposes.



Cat. No. 700-HN226

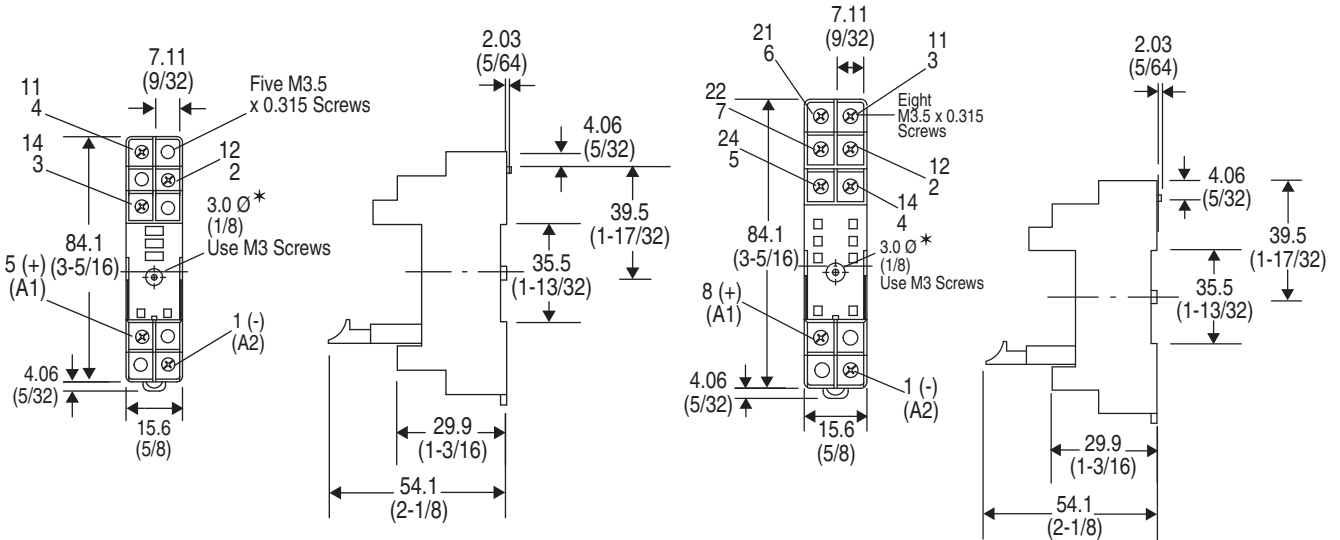


Cat. No. 700-HN227



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

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-HN121**  
**Wire Size: 2 x 2.5 mm<sup>2</sup>**  
**Single Wire – Up to #14 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-HN122**  
**Wire Size: 2 x 2.5 mm<sup>2</sup>**  
**Single Wire – Up to #14 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)**

\* Holes required for mounting [3 mm (1/8 in.) diameter].