

Industrial Grade Connectors for Temporary and Semi-Permanent Power Distribution Applications

# rhino-hide®





### rhino-hide<sup>®</sup> Single Pole Cam-Type Devices

Rhino-Hide Single Pole Cam-Type Devices from Leviton are designed to provide superior service and durability, even under the most severe operating conditions. Our 15 Series Taper Nose mini-cam plugs and receptacles are rated to 150 Amps, making them ideal for entertainment applications such as those found in carnivals and theme parks.

Our 16 Series Taper Nose Cam-Type Devices are rated up to 400 Amps, making them the devices of choice for power distribution applications such as construction sites, mining operations, welding, cell tower backup power, concerts, sound stages, movie making, television productions, sporting events and conventions.





For technical support call 800-824-3005



The 18 Series Single Pole Ball Nose Cam-Type Devices are also rated to 400 Amps, and are typically favored by the broadcasting and welding industries as well as many end users in Canada.

All of these devices feature solid brass contacts and high-performance TPV insulators, making them ideal for both outdoor and indoor applications. The positive locking connection maintains its integrity even when subjected to vibration. Plus, they are interoperable and interchangeable with competitive products.





16S31-UCL Cover Shown with 16R21-UE Panel Mount Receptacle





rhino-hide<sup>®</sup> Single Pole Cam-Type Devices Our 17 & 19 Series Taper and Ball Nose devices are rated up to 690 Amps and can withstand grueling, heavy-duty industrial use. Preferred applications for this series include generator test stations, water purification plants, electrochemical machining equipment and other general industrial uses.





17D21-B





Rhino-Hide 22 & 23 Series Single Pole Latching Cam-Type devices are also rated up to 690 Amps and feature an additional latching mechanism for added security, especially in high-vibration applications. These devices can also be retrofitted to existing locations and power distribution systems allowing for an effortless installation.

The 22 Series Plugs offer an innovative solution for all tower-to-cell cable connections in wind turbines. Our In-Line Cam-Type Plugs partnered with pre-assembled harnesses allow quick connect and disconnect on site. In addition when compared to traditional "butt-splice" methods, cam plugs lower total installation costs drastically. These plugs are commonly used to provide power to ships at dock side, and are recognized by ETL Labs to meet U.S. Navy specifications.





### **Single Pole High Amperage Devices**



### rhino-hide<sup>®</sup> 49 Series Single Pole High Amperage Devices

Rhino-Hide 49 Series single pole devices are designed to deliver up to 1135 Amps at 1000 volts, AC or DC, under the most extreme conditions with cables ranging in size from 313 MCM to 777 MCM. Leviton's Rhino-Hide products are designed to mate with other manufacturers' high-amperage single pole devices.

Rhino-Hide 49 Series single pole high amperage devices are CE Certified and cURus recognized components engineered to exceptional standards for high-amperage power delivery.







### **Single Pole High Amperage Devices**

Rhino-Hide 49 Series products are ideal for any number of demanding applications requiring continuous, reliable high-amperage power in multi phases. Typical locations where these products are used include oil and gas rigs as well as heavy industrial applications. Rhino-Hide devices can be installed on both existing silicon-controlled rectifiers (SCR's) and generator stations or on new oil and gas rig construction. These devices are used by SCR drive manufacturers and top drive manufacturers to distribute power from the SCR to mud pumps and top drives.





49MR2-CR

49MR1-XR

### rhino-hide<sup>®</sup>

### Cam-Type Devices for Commercial and Industrial Use

Rhino-Hide Single Pole Cam-Type Connectors from Leviton supply temporary electrical power distribution for multiple indoor and outdoor applications.

### **Common Applications**

- Sports, Entertainment and Movie Industry
- Theme Parks and Carnival Equipment
- Concert Venues and Convention Centers
- Motor and Generator Splices

- Welding and Construction Sites
- Commercial and Navy Shipbuilding/Repair
- Petrochemical and Manufacturing Plant Turnarounds
- Numerous Other Temporary Power Applications

• Mining Operations

### Features and Benefits

- Plugs are available in set screw or crimp tube termination, taper nose and ball nose configurations
- Intermateable and compatible with competitive cam-type products can be retrofitted to existing locations and power distribution systems
- Shatter and crack proof high durometer thermoplastic vulcanizate (TPV) or neoprene rubber
- Color-coded insulating sleeves provide fast and easy phase identification
- Self compensating for wear slit in male contact provides spring action for longer usage
- Quick connect/disconnect
- High conductivity positive, vibration-proof connection provided by cam design
- Wide range of applications usable with a wide range of cable and amperage ratings
- Meets NEC requirements and is UL Listed and CSA Certified; NEMA 3R-Rated for use in outside locations

### **Experience the Difference**

Rhino-Hide Single Pole Cam-Type Connectors are designed for easy assembly and disassembly without special tools. A thermoplastic screw is used to tightly secure the contact inside the insulating sleeve, making assembly, disassembly and field repairs effortless. The plugs use plastic locking and reinforcement rings molded into insulating sleeves and receptacles ensuring the integrity of the connection. Under severe stress and load conditions, these rings will not melt, break or crack.

# **rhino-hide**<sup>®</sup> When downtime is not an option.



### **Cam-Type Plugs Features and Benefits**



Hard thermoplastic screw provides strength and durability

Intermateable with competitive cam-type products—can be retrofitted to existing locations and power distribution systems

#### **CAM-TYPE PLUGS**

	Component	Description	Standards and Certifications (NEMA, UL, CSA)
15, 16, 18 Series Plugs	Sleeve*	Thermoplastic Vulcanizate (TPV)	See individual pages throughout
	Contact	Brass	this section for specific Standards
	Strain Relief	Copper Wire	and Certifications information
17, 19, 22, 23 Series Plugs	Sleeve**	Neoprene	See individual pages throughout
	Contact	Brass	this section for specific Standards
	Strain Relief	Copper Wire	and Certifications information

\*"V" Series: Neoprene \*\*22L22-S and 22L25-S Series: TPV

# 15 Series Taper Nose Devices - 150A, 600V AC/DC Max NEMA 3R Rated for Outdoor Use

Male Plug - Set Screw Termination (15D21-UG Shown)



Male Plug - Crimp Tube Termination Contact (15D23-UC Shown; Uses Same Sleeve As Above)





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Male Panel Receptacle (15R21-UR Shown)



**Female Panel Receptacle** (15R22-UH Shown)



Enclosure (15S31-UR Shown)





### 15 Series Device Ordering Information

### **CAM-TYPE PLUGS**

		Single Set Screw Male Plug	Termination 🖲 🕲 Female Plug
	White	15D21-UW	15D22-UW
	Black	15D21-UE	15D22-UE
Cable Size: #8 - #2	Brown	15D21-UH	15D22-UH
Max Ampacity: 150A Voltage: 600V AC/DC	Red	15D21-UR	15D22-UR
VUILAge. 000V AC/DC	Blue	15D21-UB	15D22-UB
UL/CSA 1691 Listed	Orange	15D21-U0	15D22-U0
	Green	15D21-UG	15D22-UG
	Yellow	15D21-UY	15D22-UY
Replacement Contacts		15D21-UC	15D22-UC
		Crimp Tube Te	ermination   🏵
		Male Plug	Female Plug
	White	15D23-UW	15D24-UW
	Black	15D23-UE	15D24-UE
Cable Size: #8 - #4		1 5 5 6 6 4 4 4	

		Male Plug	Female Plug	
	White	15D23-UW	15D24-UW	
	Black	15D23-UE	15D24-UE	
Cable Size: #8 - #4	Brown	15D23-UH	15D24-UH	
Max Ampacity: 140A	Red	15D23-UR	15D24-UR	
Voltage: 600V AC/DC	Blue	15D23-UB	15D24-UB	
UL/CSA 1691 Listed	Orange	15D23-U0	15D24-U0	
	Green	15D23-UG	15D24-UG	
	Yellow	15D23-UY	15D24-UY	
Replacement Contacts		15D23-UC	15D24-UC	

#### **CAM-TYPE PANEL MOUNT RECEPTACLES**

		.5" Threaded Stud Term. 🖲 🗐 Male Female		.75" Threaded S Male	Stud Term. 🖲 🕲 Female
	White	15R21-UW	15R22-UW	15R21-1UW	15R22-1UW
	Black	15R21-UE	15R22-UE	15R21-1UE	15R22-1UE
Cable Size: #8 - #2	Brown	15R21-UH	15R22-UH	15R21-1UH	15R22-1UH
Max Ampacity: 150A	Red	15R21-UR	15R22-UR	15R21-1UR	15R22-1UR
Voltage: 600V AC/DC	Blue	15R21-UB	15R22-UB	15R21-1UB	15R22-1UB
UL/CSA 1691 Listed	Orange	15R21-UO	15R22-U0	15R21-1U0	15R22-1UO
	Green	15R21-UG	15R22-UG	15R21-1UG	15R22-1UG
	Yellow	15R21-UY	15R22-UY	15R21-1UY	15R22-1UY

#### **REPLACEMENT SLEEVES & PANEL MOUNT COVERS**

	Male Plug	Female Plug	Enclosure Male/Female
White	15SDM-1UW	15SDF-1UW	15S31-UW
Black	15SDM-1UE	15SDF-1UE	15S31-UE
Brown	15SDM-1UH	15SDF-1UH	15S31-UH
Red	15SDM-1UR	15SDF-1UR	15S31-UR
Blue	15SDM-1UB	15SDF-1UB	15S31-UB
Orange	15SDM-1U0	15SDF-1U0	15S31-UO
Green	15SDM-1UG	15SDF-1UG	15S31-UG
Yellow	15SDM-1UY	15SDF-1UY	15S31-UY

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

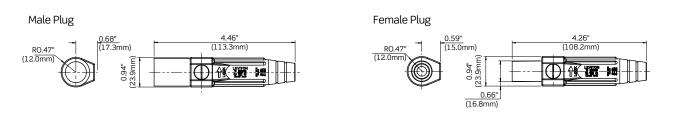
#### **Single Pole Cam Devices** rhino-hide<sup>®</sup> **Cam-Type 15 Series Device Accessories** Lubricating Spray C0001 for 16 Fl. Oz. Can "Com-A-Long" Assembly Tools 15CLM-U for Female Plug 15CLF-U for Male Plug LEVITON Silicone Spray Lube **Copper Shims Strain Relief Wire Plastic Screws** Set Screws A0006 A0007 A0001 A0011 (Sold 10 per package) (Sold 10 per package) (Sold 10 per package) (Sold 10 per package)



**Cam-Type** 

### 15 Series Device Technical Drawings

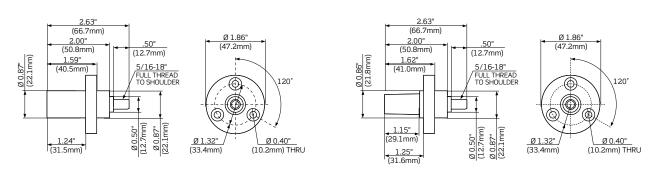
#### DIMENSIONS



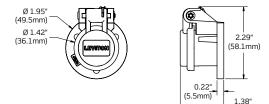
Male Panel Receptacle

Female Panel Receptacle

35.1mm



Enclosure for Male and Female Panel Receptacles



#### AMPACITY TABLE

Cable Size	Ampacity
#8	80
#6	105
#4	140
#2	190

Excerpted from NEC Article 400, Table 400.5(A)(2), 90° column

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#### **Cam-Type**

# 16 Series Taper Nose Plugs - 400A, 600V AC/DC Max NEMA 3R Rated for Outdoor Use

Male Plug - Single Set Screw Termination (16D21-UO Shown)



Male Plug -Double Set Screw Termination Contact (16D22-PC Shown)



Male Plug -Crimp Tube Termination Contact (For 16D25 Shown)



Female Plug -Double Set Screw Termination Contact (16D31-PC Shown)

(16D29-UG Shown)



Female Plug -Crimp Tube Termination Contact (For 16D34 Shown)



Male Plug - Crimp Tube Termination with Neoprene Sleeve (16V22-B Shown)



Male Plug - Flame Retardant for Mining Applications (16D40-U Shown)



with Neoprene Sleeve (16V26-R Shown)

Female Plug - Crimp Tube Termination

Female Plug - Single Set Screw Termination



Female Plug - Flame Retardant for Mining Applications (16D41-U Shown)





### 16 Series Plug Ordering Information

### **CAM-TYPE PLUGS**

		Double Set Screw Male Plug	v Termination ® ® Female Plug		
	White	16D44-UW	16D45-UW		
	Black	16D44-UE	16D45-UE		
Cable Size: #6 - #2	Brown	16D44-UH	16D45-UH		
Max Ampacity: 190A Voltage: 600V AC/DC	Red	16D44-UR	16D45-UR		
Vollage. 000V AC/DC	Blue	16D44-UB	16D45-UB		
UL/CSA 1691 Listed	Orange	16D44-U0	16D45-U0		
	Green	16D44-UG	16D45-UG		
	Yellow	16D44-UY	16D45-UY		
		<b>Crimp Tube Te</b> Male Plug	ermination ® ® Female Plug		
	White	16D25-UW	16D34-UW		
	Black	16D25-UE	16D34-UE		
Cable Size: #2 - #1	Brown	16D25-UH	16D34-UH		
Max Ampacity: 220A	Red	16D25-UR	16D34-UR		
Voltage: 600V AC/DC	Blue	16D25-UB	16D34-UB		
UL/CSA 1691 Listed	Orange	16D25-U0	16D34-U0		
	Green	16D25-UG	16D34-UG		
	Yellow	16D25-UY	16D34-UY		
		Single Set Screw Male Plug	<b>Termination  🕲 </b> Female Plug	Double Set Screw Male Plug	v Termination   🏵 Female Plug
	White	16D21-UW	16D29-UW	16D22-UW	16D31-UW
	Black	16D21-UE	16D29-UE	16D22-UE	16D31-UE
Cable Size: #2 - 2/0	Brown	16D21-UH	16D29-UH	16D22-UH	16D31-UH
Max Ampacity: 300A	Red	16D21-UR	16D29-UR	16D22-UR	16D31-UR
Voltage: 600V AC/DC	Blue	16D21-UB	16D29-UB	16D22-UB	16D31-UB
UL/CSA 1691 Listed	Orange	16D21-U0	16D29-U0	16D22-U0	16D31-U0
	Green	16D21-UG	16D29-UG	16D22-UG	16D31-UG
	Yellow	16D21-UY	16D29-UY	16D22-UY	16D31-UY
Replacement Contacts		—	—	16D22-UC	16D31-UC
		<b>Crimp Tube Te</b> Male Plug	ermination   🍘 Female Plug		
	White	16D26-UW	16D35-UW		
	Black	16D26-UE	16D35-UE		
			10000		
	Brown	16D26-UH	16D35-UH		
Max Ampacity: 300A	Brown Red	16D26-UH 16D26-UR	16D35-UR		
Max Ampacity: 300A					
Cable Size: 1/0 - 2/0 Max Ampacity: 300A Voltage: 600V AC/DC UL/CSA 1691 Listed	Red	16D26-UR	16D35-UR		
Max Ampacity: 300A	Red Blue	16D26-UR 16D26-UB	16D35-UR 16D35-UB		

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

### 16 Series Plug Ordering Information

### **CAM-TYPE PLUGS**

		Single Set Screw Male Plug	<b>r Termination</b> (9) (9) Female Plug	Double Set Screv Male Plug	v Termination ® ® Female Plug
	White	16D23-UW	16D32-UW	16D24-UW	16D33-UW
	Black	16D23-UE	16D32-UE	16D24-UE	16D33-UE
Cable Size: 2/0 - 4/0	Brown	16D23-UH	16D32-UH	16D24-UH	16D33-UH
Max Ampacity: 400A	Red	16D23-UR	16D32-UR	16D24-UR	16D33-UR
Voltage: 600V AC/DC	Blue	16D23-UB	16D32-UB	16D24-UB	16D33-UB
UL/CSA 1691 Listed	Orange	16D23-U0	16D32-U0	16D24-U0	16D33-UO
	Green	16D23-UG	16D32-UG	16D24-UG	16D33-UG
	Yellow	16D23-UY	16D32-UY	16D24-UY	16D33-UY
Replacement Contacts		_	_	16D24-UC	16D33-UC

#### Crimp Tube Termination 🖲 🕼

		Male Plug	Female Plug
	White	16D28-UW	16D37-UW
	Black	16D28-UE	16D37-UE
Cable Size: 3/0 - 4/0	Brown	16D28-UH	16D37-UH
Max Ampacity: 400A	Red	16D28-UR	16D37-UR
Voltage: 600V AC/DC	Blue	16D28-UB	16D37-UB
UL/CSA 1691 Listed	Orange	16D28-U0	16D37-U0
	Green	16D28-UG	16D37-UG
	Yellow	16D28-UY	16D37-UY

### **REPLACEMENT SLEEVES (TPV)**

	For Plugs 1/0 to 4/0		For Plug	s #2 - 2/0
	Male Plug	Female Plug	Male Plug	Female Plug
White	16SDM-1UW	16SDF-1UW	16SDM-2UW	16SDF-2UW
Black	16SDM-1UE	16SDF-1UE	16SDM-2UE	16SDF-2UE
Brown	16SDM-1UH	16SDF-1UH	16SDM-2UH	16SDF-2UH
Red	16SDM-1UR	16SDF-1UR	16SDM-2UR	16SDF-2UR
Blue	16SDM-1UB	16SDF-1UB	16SDM-2UB	16SDF-2UB
Orange	16SDM-1U0	16SDF-1U0	16SDM-2U0	16SDF-2U0
Gray	16SDM-1UG	16SDF-1UG	16SDM-2UG	16SDF-2UG
Yellow	16SDM-1UY	16SDF-1UY	16SDM-2UY	16SDF-2UY

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

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### 16 Series Plug Ordering Information

#### **CAM-TYPE PLUGS**

		Crimp Tube	Termination	
		Male Plug	Female Plug	
	White	16V22-W	16V26-W	
	Black	16V22-E	16V26-E	
Cable Size: 1/0 - 2/0	Brown	16V22-H	16V26-H	
Max Ampacity: 300A	Red	16V22-R	16V26-R	
Voltage: 600V	Blue	16V22-B	16V26-B	
Neoprene Sleeve	Orange	16V22-0	16V26-0	
	Green	16V22-G	16V26-G	
	Yellow	16V22-Y	16V26-Y	
		Crimp Tube	Termination	
		Male Plug	Female Plug	
	White	16V24-W	16V28-W	
	Black	16V24-E	16V28-E	
Cable Size: 3/0 - 4/0	Brown	16V24-H	16V28-H	
Max Ampacity: 400A	Red	16V24-R	16V28-R	
Voltage: 600V	Blue	16V24-B	16V28-B	
Neoprene Sleeve	Orange	16V24-0	16V28-0	
	Green	16V24-G	16V28-G	
	Yellow	16V24-Y	16V28-Y	
		Double Set Screy	v Termination	
		Male Plug	Female Plug	
Cable Size: 2/0 - 4/0 Max Ampacity: 400A Voltage: 600V AC/DC Flame Retardant	White	16D40-U	16D41-U	
UL/CSA 1691 Listed				

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

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#### Cam-Type

# 16 Series Taper Nose Panel Mount Receptacles - 400A, 600V AC/DC Max NEMA 3R Rated for Outdoor Use

Male - Double Set Screw (16R21-UR Shown)



Male - 45° Double Set Screw (16R27-UG Shown)



Female - Double Set Screw (16R22-UG Shown)



Female - 45° Double Set Screw (16R28-UB Shown)



Female - Threaded Stud (Rear View 16R24-UW Shown)



Male - Half Round Bus Bar (Rear View 16R19-UE Shown)



Female Terminal Connector -Angle Style (16F21-UB Shown)



Male Protective Cap (16P21-UO Shown)

Female Protective Cap (16P22-UO Shown)



Enclosure for Panel Receptacles (16S31-UCL Cover Shown with 16R21-UE Receptacle)





**Cam-Type** 

### 16 Series Receptacle Ordering Information

#### **CAM-TYPE PANEL MOUNT RECEPTACLE**

		Double Set Screw Termination 🖲 🗐				
		Male, 90°	Female, 90°	Male, 45°	Female, 45°	
	White	16R21-UW	16R22-UW	16R27-UW	16R28-UW	
	Black	16R21-UE	16R22-UE	16R27-UE	16R28-UE	
Cable Size: 2/0 - 4/0	Brown	16R21-UH	16R22-UH	16R27-UH	16R28-UH	
Max Ampacity: 400A	Red	16R21-UR	16R22-UR	16R27-UR	16R28-UR	
Voltage: 600V AC/DC	Blue	16R21-UB	16R22-UB	16R27-UB	16R28-UB	
UL/CSA 1691 Listed	Orange	16R21-U0	16R22-U0	16R27-U0	16R28-U0	
	Green	16R21-UG	16R22-UG	16R27-UG	16R28-UG	
	Yellow	16R21-UY	16R22-UY	16R27-UY	16R28-UY	
			.75"L Threaded Stu	d** Termination 🖲 🏽		

			./5 L IIIIea	aded Stud Termi	nation 🕾 👁	
		Male, 90°	Female, 90°	w/microswitch	Male, 45°	Female, 45°
	White	16R23-UW	16R24-UW	16RSW-UW	16R29-UW	16R30-UW
	Black	16R23-UE	16R24-UE	16RSW-UE	16R29-UE	16R30-UE
Cable Size: #2 - 4/0	Brown	16R23-UH	16R24-UH	16RSW-UH	16R29-UH	16R30-UH
Max Ampacity: 400A	Red	16R23-UR	16R24-UR	16RSW-UR	16R29-UR	16R30-UR
Voltage: 600V AC/DC	Blue	16R23-UB	16R24-UB	16RSW-UB	16R29-UB	16R30-UB
UL/CSA 1691 Listed	Orange	16R23-U0	16R24-U0	16RSW-UO	16R29-U0	16R30-U0
	Green	16R23-UG	16R24-UG	16RSW-UG	16R29-UG	16R30-UG
	Yellow	16R23-UY	16R24-UY	16RSW-UY	16R29-UY	16R30-UY

		1.125"L Threaded Stud** Termination ® ® Self-Clinching Nut				
		Male, 90°	Female, 90°	Male, 90°	Female, 90°	
	White	16R23-1UW	16R24-1UW	16R25-1UW	16R26-1UW	
	Black	16R23-1UE	16R24-1UE	16R25-1UE	16R26-1UE	
Cable Size: #2 - 4/0	Brown	16R23-1UH	16R24-1UH	16R25-1UH	16R26-1UH	
Max Ampacity: 400A	Red	16R23-1UR	16R24-1UR	16R25-1UR	16R26-1UR	
Voltage: 600V AC/DC	Blue	16R23-1UB	16R24-1UB	16R25-1UB	16R26-1UB	
JL/CSA 1691 Listed	Orange	16R23-1U0	16R24-1UO	16R25-1U0	16R26-1U0	
	Green	16R23-1UG	16R24-1UG	16R25-1UG	16R26-1UG	
	Yellow	16R23-1UY	16R24-1UY	16R25-1UY	16R26-1UY	
			Stud** Termination ed Shoulder (1) (6)	Half Round w/T	apped Hole (1) (1)	

		-0.75 EXtenueu Shouluei 🖤 👁			
		Male, 90°	Female, 90°	Male, 90°	Female, 90°
	White	16R31-XW	16R32-XW	16R19-UW	16R20-UW
	Black	16R31-XE	16R32-XE	16R19-UE	16R20-UE
Cable Size: #2 - 4/0	Brown	16R31-XH	16R32-XH	16R19-UH	16R20-UH
Max Ampacity: 400A	Red	16R31-XR	16R32-XR	16R19-UR	16R20-UR
Voltage: 600V AC/DC	Blue	16R31-XB	16R32-XB	16R19-UB	16R20-UB
UL/CSA 1691 Listed	Orange	16R31-XO	16R32-X0	16R19-UO	16R20-U0
	Green	16R31-XG	16R32-XG	16R19-UG	16R20-UG
	Yellow	16R31-XY	16R32-XY	16R19-UY	16R20-UY

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

\*\*Threaded stud termination type receptacles are available with custom stud lengths, from .75"L to 3.00"L. Please contact your local sales representative for ordering information and availability.

### 16 Series Receptacle Ordering Information

#### **TERMINAL CONNECTORS**

			Bus Bar Mount   🏵	
		Angled Male	Angled Female	Offset
	White	16M21-2UW	16F21-UW	16F22-UW
	Black	16M21-2UE	16F21-UE	16F22-UE
Cable Size: #2 - 4/0	Brown	16M21-2UH	16F21-UH	16F22-UH
Max Ampacity: 400A	Red	16M21-2UR	16F21-UR	16F22-UR
Voltage: 600V AC/DC	Blue	16M21-2UB	16F21-UB	16F22-UB
UL/CSA 1691 Listed	Orange	16M21-2U0	16F21-U0	16F22-U0
	Green	16M21-2UG	16F21-UG	16F22-UG
	Yellow	16M21-2UY	16F21-UY	16F22-UY

#### **COVERS**

	Enclosure	Caj	DS
	Male/Female	Male	Female
White	16S31-UW	16P21-UW	16P22-UW
Black	16S31-UE	16P21-UE	16P22-UE
Brown	16S31-UH	16P21-UH	16P22-UH
Red	16S31-UR	16P21-UR	16P22-UR
Blue	16S31-UB	16P21-UB	16P22-UB
Orange	16S31-UO	16P21-U0	16P22-U0
Green	16S31-UG	16P21-UG	16P22-UG
Yellow	16S31-UY	16P21-UY	16P21-UY
Clear	16S31-UCL	—	—

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

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**Cam-Type** 

# 16 Series Taper Nose Adapters - 400A, 600V AC/DC Max NEMA 3R Rated for Outdoor Use



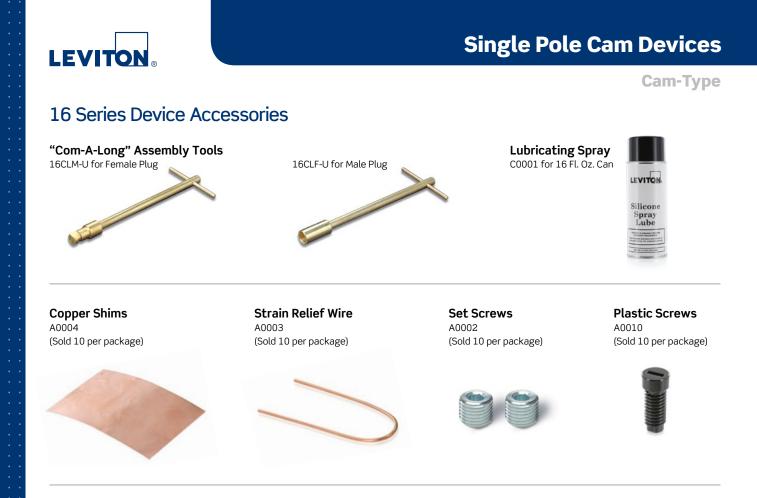
### 16 Series Adapter Ordering Information

#### CAM-TYPE ADAPTERS (1) (1)

		Paralleling Tee F-M-M	Tapping Tee F-F-M		
	White	16A21-UW	16A22-UW		
	Black	16A21-UE	16A22-UE		
Max Ampacity: 400A	Brown	16A21-UH	16A22-UH		
Voltage: 600V AC/DC	Red	16A21-UR	16A22-UR		
	Blue	16A21-UB	16A22-UB		
UL/CSA 1691 Listed	Orange	16A21-UO	16A22-U0		
	Green	16A21-UG	16A22-UG		
	Yellow	16A21-UY	16A22-UY		
		3 <b>-Fer</b> M-F-F-F	Reverse 3-Fer F-M-M-M	Double Male	Double Female
	White	16A23-UW	16A26-UW	16A25-UW	16A24-UW
	Black	16A23-UE	16A26-UE	16A25-UE	16A24-UE
Max Ampacity: 400A	Brown	16A23-UH	16A26-UH	16A25-UH	16A24-UH
Voltage: 600V AC/DC	Red	16A23-UR	16A26-UR	16A25-UR	16A24-UR
-	Blue	16A23-UB	16A26-UB	16A25-UB	16A24-UB
UL/CSA 1691 Listed	Orange	16A23-U0	16A26-U0	16A25-U0	16A24-U0
	Green	16A23-UG	16A26-UG	16A25-UG	16A24-UG
	Yellow	16A23-UY	16A26-UY	16A25-UY	16A24-UY
		Paralleling Tee F-M-M	Tapping Tee F-F-M	<b>3-Fer</b> M-F-F-F	Reverse 3-Fer F-M-M-M
Assembled Adapters	White	16A31-UW	16A32-UW	16A33-UW	16A36-UW
Cable Size: 4/0	Black	16A31-UE	16A32-UE	16A33-UE	16A36-UE
Max Ampacity: 400A	Red	16A31-UR	16A32-UR	16A33-UR	16A36-UR
Voltage: 600V AC/DC	Blue	16A31-UB	16A32-UB	16A33-UB	16A36-UB
UL/CSA 1691 Listed	Green	16A31-UG	16A32-UG	16A33-UG	16A36-UG

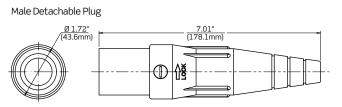
Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

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### 16 Series Device Technical Drawings

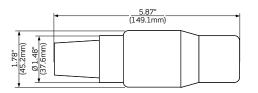
### DIMENSIONS



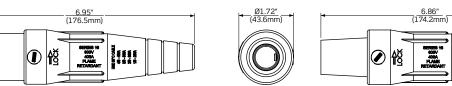


Female Detachable Plug 6.85" (173.9mm) <u>Ø 1.72</u>" (43.6mm) Λğ Ð

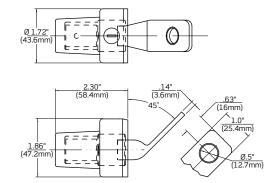
Female Vulcanized Plug



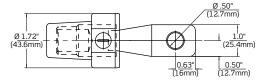
Female Detachable Plug - Flame Retardant

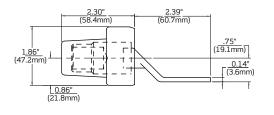


16F21 Female Terminal Connector

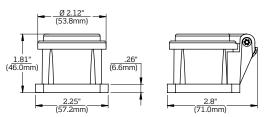


16F22 Female Terminal Connector

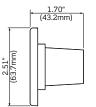




Enclosure for Male and Female Panel Receptacles



Male Protective Cap





For technical support call 800-824-3005

### Male Vulcanized Plug



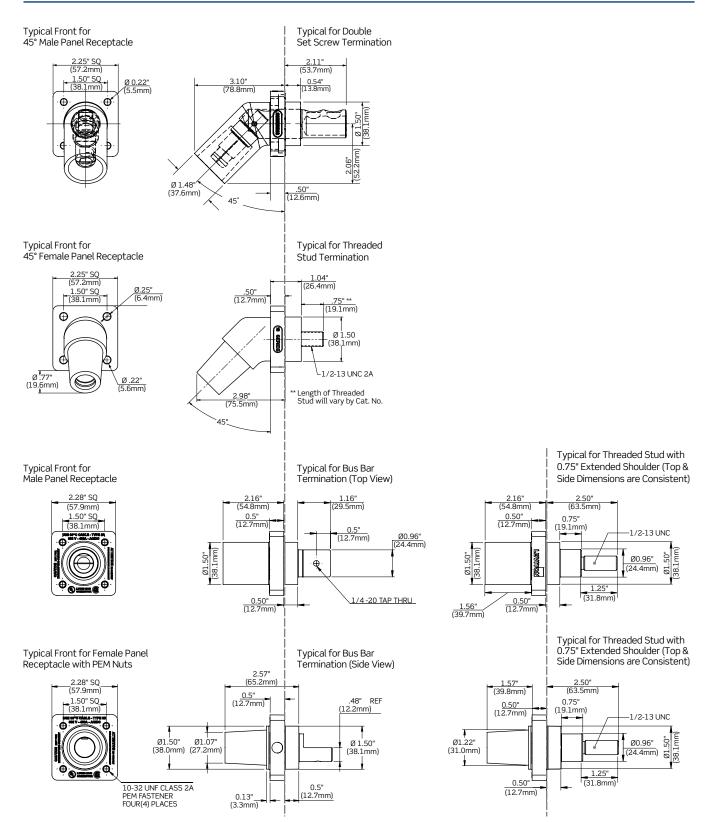




**Cam-Type** 

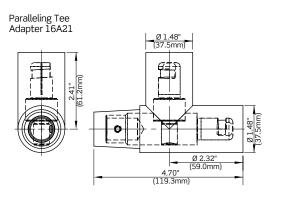
### 16 Series Device Technical Drawings

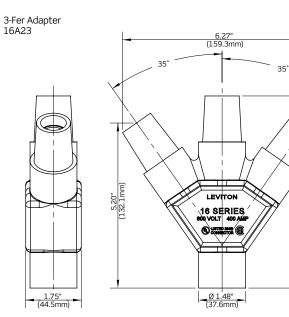
#### DIMENSIONS



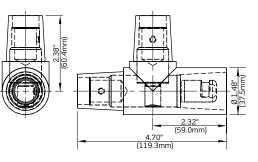
### 16 Series Device Technical Drawings

### DIMENSIONS



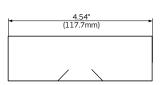


Tapping Tee Adapter 16A22



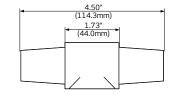
Double Male Adapter 16A25





Double Female Adapter 16A24





Reverse 3-Fer Adapter 16A26

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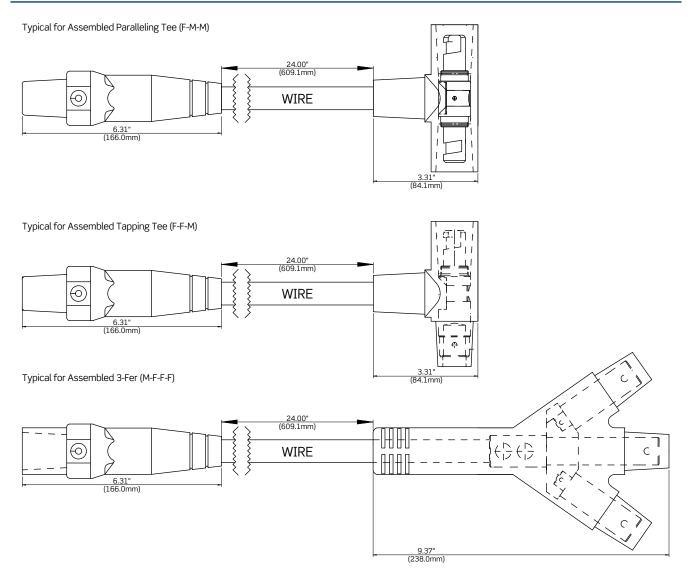
6.05" (153.7mm)



**Cam-Type** 

### 16 Series Device Technical Drawings

#### DIMENSIONS



### **AMPACITY TABLE**

105
140
190
220
260
300
350
405

Excerpted from NEC Article 400,

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#### **Cam-Type**

# 18 Series Ball Nose Devices - 400A, 600V AC/DC Max NEMA 3R Rated for Outdoor Use

Male Plug - Double Set Screw Termination (18D24-UE Shown)



Female Plug - Double Set Screw Termination (18D33-UR Shown)



Male Plug - Single Set Screw Termination Contact (From 18D21-U\* Shown)



Female Plug - Single Set Screw Termination Contact (From 18D29-U\* Shown)



Male Panel Mount Receptacle - 75" Threaded Stud (18R21-UB Shown)



Male Panel Mount Receptacle - Double Set Screw (18R23-UH Shown)







Female Terminal Connector - Angled (18F21-UW Shown)



Female Terminal Connector - Offset (18F22-UE Shown)





### 18 Series Device Ordering Information

### **CAM-TYPE PLUGS**

		Single Set Screw Male Plug	<b>Termination ® ®</b> Female Plug	Double Set Screv Male Plug	<b>r Termination</b> (1) (1) Female Plug
	White	18D21-UW	18D29-UW	18D22-UW	18D31-UW
	Black	18D21-UE	18D29-UE	18D22-UE	18D31-UE
Cable Size: #2 - 2/0	Brown	18D21-UH	18D29-UH	18D22-UH	18D31-UH
Max Ampacity: 300A	Red	18D21-UR	18D29-UR	18D22-UR	18D31-UR
Voltage: 600V AC/DC	Blue	18D21-UB	18D29-UB	18D22-UB	18D31-UB
UL/CSA 1691 Listed	Orange	18D21-U0	18D29-UO	18D22-UO	18D31-U0
	Green	18D21-UG	18D29-UG	18D22-UG	18D31-UG
	Yellow	18D21-UY	18D29-UY	18D22-UY	18D31-UY
		Single Set Screw Male Plug	7 Termination   🕲 🕲 Female Plug	Double Set Screv Male Plug	<b>v Termination</b> (1) (1) Female Plug
	White	•			
	White Black	Male Plug	Female Plug	Male Plug	Female Plug
Cable Size: 2/0 - 4/0		Male Plug 18D23-UW	Female Plug 18D32-UW	Male Plug 18D24-UW	Female Plug 18D33-UW
Max Ampacity: 400A	Black	Male Plug 18D23-UW 18D23-UE	Female Plug 18D32-UW 18D32-UE	Male Plug   18D24-UW   18D24-UE	Female Plug 18D33-UW 18D33-UE
	Black Brown	Male Plug 18D23-UW 18D23-UE 18D23-UH	Female Plug 18D32-UW 18D32-UE 18D32-UH	Male Plug 18D24-UW 18D24-UE 18D24-UH	Female Plug   18D33-UW   18D33-UE   18D33-UH
Max Ampacity: 400A	Black Brown Red	Male Plug 18D23-UW 18D23-UE 18D23-UH 18D23-UR	Female Plug 18D32-UW 18D32-UE 18D32-UH 18D32-UR	Male Plug 18D24-UW 18D24-UE 18D24-UH 18D24-UR	Female Plug 18D33-UW 18D33-UE 18D33-UH 18D33-UR
Max Ampacity: 400A Voltage: 600V AC/DC	Black Brown Red Blue	Male Plug 18D23-UW 18D23-UE 18D23-UH 18D23-UR 18D23-UB	Female Plug 18D32-UW 18D32-UE 18D32-UH 18D32-UR 18D32-UB	Male Plug   18D24-UW   18D24-UE   18D24-UH   18D24-UH   18D24-UR   18D24-UB	Female Plug 18D33-UW 18D33-UE 18D33-UH 18D33-UR 18D33-UB

#### **CAM-TYPE PANEL MOUNT RECEPTACLES**

	:	75"L Threaded St Male, 90°	ud Termination   🏵 . Female, 90°	
	White	18R21-UW	18R22-UW	
	Black	18R21-UE	18R22-UE	
Cable Size: #2 - 4/0	Brown	18R21-UH	18R22-UH	
Max Ampacity: 400A	Red	18R21-UR	18R22-UR	
Voltage: 600V AC/DC	Blue	18R21-UB	18R22-UB	
UL/CSA 1691 Listed	Orange	18R21-UO	18R22-UO	
	Green	18R21-UG	18R22-UG	
	Yellow	18R21-UY	18R22-UY	
		Double Set Screv	r Termination   🕲	
		Male, 90°	Female, 90°	
	White	18R23-UW	18R24-UW	
	Black	18R23-UE	18R24-UE	
Cable Size: 2/0 - 4/0	Brown	18R23-UH	18R24-UH	
Max Ampacity: 400A Voltage: 600V AC/DC	Red	18R23-UR	18R24-UR	
voltage. 000v AC/DC	Blue	18R23-UB	18R24-UB	
UL/CSA 1691 Listed	Orange	18R23-UO	18R24-UO	
	Green	18R23-UG	18R24-UG	

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

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### 18 Series Device Ordering Information

#### FEMALE TERMINAL CONNECTORS

		Bus Bar M	lount 🗓 🕼
		Angle	Offset
	White	18F21-UW	18F22-UW
	Black	18F21-UE	18F22-UE
Cable Size: #2 - 4/0	Brown	18F21-UH	18F22-UH
Max Ampacity: 400A	Red	18F21-UR	18F22-UR
Voltage: 600V AC/DC	Blue	18F21-UB	18F22-UB
UL/CSA 1691 Listed	Orange	18F21-U0	18F22-U0
	Green	18F21-UG	18F22-UG
	Yellow	18F21-UY	18F22-UY

#### COVERS

Caps		
	Male	Female
White	18P21-UW	18P22-UW
Black	18P21-UE	18P22-UE
Brown	18P21-UH	18P22-UH
Red	18P21-UR	18P22-UR
Blue	18P21-UB	18P22-UB
Orange	18P21-U0	18P22-U0
Green	18P21-UG	18P22-UG
Yellow	18P21-UY	18P22-UY

#### **CAM-TYPE ADAPTERS**

		Paralleling Tee 🖲 🗐 F-M-M	Tapping Tee 🖲 🕲 F-F-M		
	White	18A21-UW	18A22-UW		
	Black	18A21-UE	18A22-UE		
Max Ampacity: 400A	Brown	18A21-UH	18A22-UH		
Voltage: 600V AC/DC	Red	18A21-UR	18A22-UR		
	Blue	18A21-UB	18A22-UB		
UL/CSA 1691 Listed	Orange	18A21-UO	18A22-UO		
	Green	18A21-UG	18A22-UG		
	Yellow	18A21-UY	18A22-UY		
		<b>3-Fer</b> ₪ <b>®</b> ₌ M-F-F-F	Double Male   🏵	Double Female 🖲 🕲	
	White	18A23-UW	18A25-UW	18A24-UW	
			10/100 011		
	Black	18A23-UE	18A25-UE	18A24-UE	
Max Ampacity: 400A	Black Brown	18A23-UE 18A23-UH		18A24-UE 18A24-UH	
Max Ampacity: 400A Voltage: 600V AC/DC			18A25-UE		
Voltage: 600V AC/DC	Brown	18A23-UH	18A25-UE 18A25-UH	18A24-UH	
	Brown Red	18A23-UH 18A23-UR	18A25-UE 18A25-UH 18A25-UR	18A24-UH 18A24-UR	
Voltage: 600V AC/DC	Brown Red Blue	18A23-UH 18A23-UR 18A23-UB	18A25-UE 18A25-UH 18A25-UR 18A25-UB	18A24-UH 18A24-UR 18A24-UB	

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

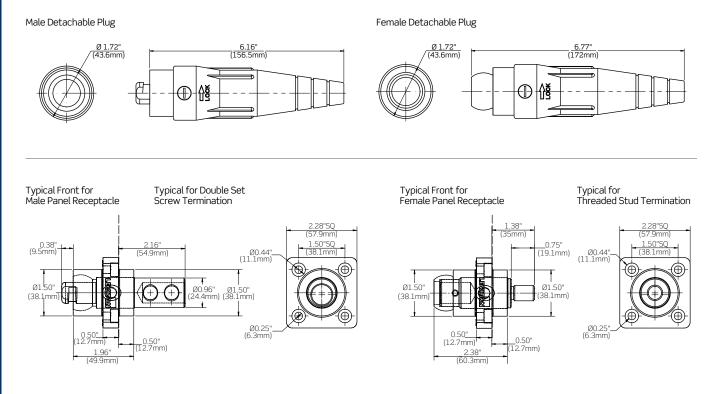
Single Pole Cam Devices				
Cam-Type				•••
18 Series Accessories				•••
"Com-A-Long" Assembly Tools 16CLM-U for Female Plug	16CLF-U for Male Plug	Lubricating S C0001 for 16 Fl.	Spray Oz. Can LEVITOR Silicone Spray Lube	
Copper Shims A0004 (Sold 10 per package)	Strain Relief Wire A0003 (Sold 10 per package)	<b>Set Screws</b> A0002 (Sold 10 per package)	Plastic Screws A0010 (Sold 10 per package)	



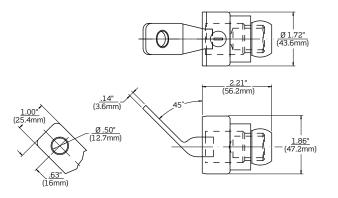
**Cam-Type** 

### 18 Series Device Technical Drawings

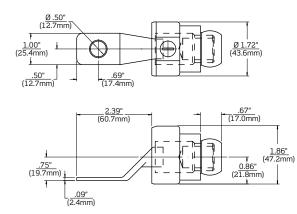
#### DIMENSIONS



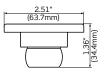
#### 18F21 Female Terminal Connector - Bus Bar Mount, Angled



18F22 Female Terminal Connector - Bus Bar Mount, Offset



18P21 Male Protective Cap



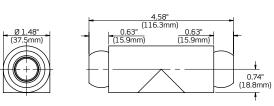
18P22 Female Protective Cap



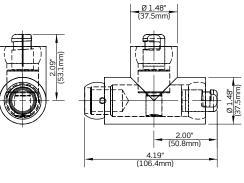
### 18 Series Device Technical Drawings

#### DIMENSIONS

18A25 Double Male Adapter

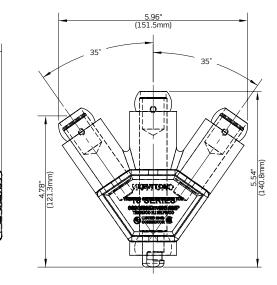


Paralleling Tee Adapter



#### 3-Fer Adapter

1.75" (44.5mm)

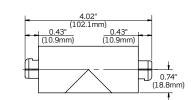


### **AMPACITY TABLE**

Cable Size	Ampacity		
#2	190		
1/0	260		
2/0	300		
4/0	405		
Excerpted from NEC Article 400			

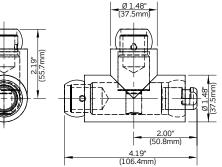
Excerpted from NEC Article 400, Table 400.5(A)(2), 90° column 18A24 Double Female Adapter

Ø 1.48" (37.5mm)



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Tapping Tee Adapter





**Industrial Grade** 

### 17 Series Taper Nose Devices - 690A, 600V Max

Male Plug - Double Set Screw Termination



Male Vulcanized Plug - Crimp Tube Termination, Neoprene Sleeve (17V23-E Shown)



Female Plug - Double Set Screw Termination (17D23-0 Shown)

Female Vulcanized Plug - Crimp Tube Termination, Neoprene Sleeve (17D26-B Shown)



Male Panel Mount Receptacle - 90° Threaded Stud Termination (17R21-G Shown) Female Panel Mount Receptacle - 30° Threaded Stud Termination (17R24-R Shown)









## 17 Series Device Ordering Information

#### **CAM-TYPE PLUGS**

		Double Set Sc Male Plug	r <b>ew Termination</b> Female Plug	
	White	17D22-W	17D24-W	
	Black	17D22-E	17D24-E	
Cable Size: 350-500MCM	Brown	17D22-H	17D24-H	
Max Ampacity: 690A	Red	17D22-R	17D24-R	
Voltage: 600V Neoprene Sleeve	Blue	17D22-B	17D24-B	
Detachable	Orange	17D22-0	17D24-0	
	Green	17D22-G	17D24-G	
	Yellow	17D22-Y	17D24-Y	

		Double Set Sc Male Plug	<b>rew Termination</b> Female Plug	
	White	17D21-W	17D23-W	
	Black	17D21-E	17D23-E	
Cable Size: 250-350MCM	Brown	17D21-H	17D23-H	
Max Ampacity: 570A	Red	17D21-R	17D23-R	
Voltage: 600V	Blue	17D21-B	17D23-B	
Neoprene Sleeve	Orange	17D21-0	17D23-0	
	Green	17D21-G	17D23-G	
	Yellow	17D21-Y	17D23-Y	

		Crimp Tube Male Plug	Termination Female Plug	
	White	17V23-W	17V26-W	
	Black	17V23-E	17V26-E	
Cable Size: 500-750MCM	Brown	17V23-H	17V26-H	
Max Ampacity: 690A	Red	17V23-R	17V26-R	
Voltage: 600V	Blue	17V23-B	17V26-B	
Neoprene Sleeve	Orange	17V23-0	17V26-0	
	Green	17V23-G	17V26-G	
	Yellow	17V23-Y	17V26-Y	

#### **CAM-TYPE PANEL MOUNT RECEPTACLES**

	Threaded Stud Termination					
		Male, 90°	Female, 90°	Male, 30°	Female, 30°	w/microswitch
	White	17R21-W	17R22-W	17R23-W	17R24-W	_
	Black	17R21-E	17R22-E	17R23-E	17R24-E	17RSW-E
	Brown	17R21-H	17R22-H	17R23-H	17R24-H	—
Cable Size: 250-750MCM	Red	17R21-R	17R22-R	17R23-R	17R24-R	17RSW-R
Max Ampacity: 690A Voltage: 600V	Blue	17R21-B	17R22-B	17R23-B	17R24-B	—
Voltage. 000V	Orange	17R21-0	17R22-0	17R23-0	17R24-0	—
	Green	17R21-G	17R22-G	17R23-G	17R24-G	—
	Yellow	17R21-Y	17R22-Y	17R23-Y	17R24-Y	_

## 17 Series Device Ordering Information

### COVERS

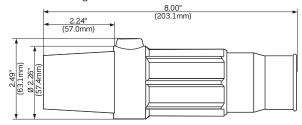
	NEMA 3R Enclosure 🖲 🚳	Ca	ps
	Male/Female	Male	Female
White	17S31-W	17P21-W	17P22-W
Black	17S31-E	17P21-E	17P22-E
Brown	17S31-H	17P21-H	17P22-H
Red	17S31-R	17P21-R	17P22-R
Blue	17S31-B	17P21-B	17P22-B
Orange	17531-0	17P21-0	17P22-0
Green	17S31-G	17P21-G	17P22-G
Yellow	17S31-Y	17P21-Y	17P22-Y



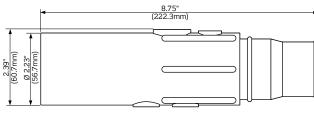
## 17 Series Technical Drawings

#### DIMENSIONS

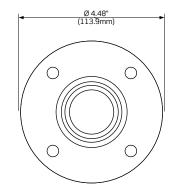
#### Male Detachable Plug



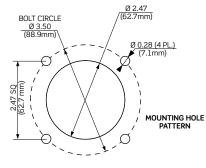
#### Male Vulcanized Plug



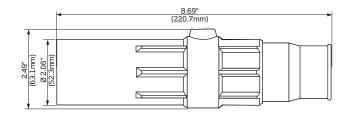
Front View 90° Panel Receptacle - Threaded Stud Common to Both Male & Female Configurations



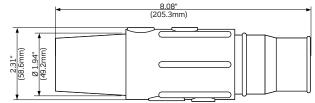
Mounting Pattern Common to Both Male & Female Configurations

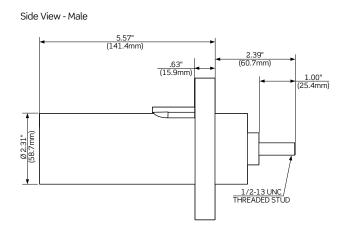


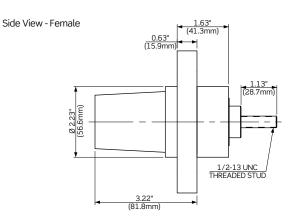
Female Detachable Plug



Female Vulcanized Plug



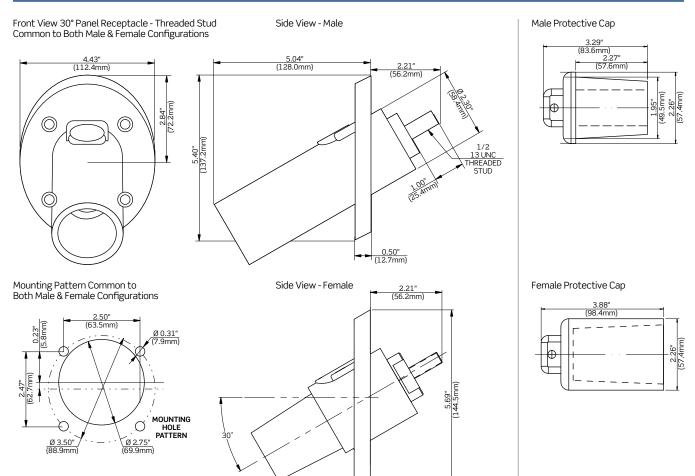




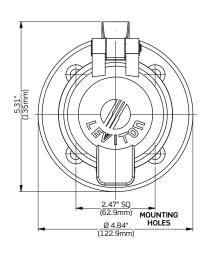
\_\_\_\_\_

## 17 Series Technical Drawings

#### DIMENSIONS



Protective Cover for 90° 17/19 Series Receptacles



6.36" (161.6mm)

0.50" (12.7mm)

#### **AMPACITY TABLE**

Cable Size	Ampacity
250	455
350	570
500	700
750	885

Excerpted from NEC Article 400, Table 400.5(A)(2), 90° column

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## **Single Pole Cam Devices**

**Industrial Grade** 

### 19 Series Ball Nose Devices - 690A, 600V Max

Male Plug - Double Set Screw Termination (19D22-G Shown)



Female Plug - Double Set Screw Termination (19D24-B Shown)



Male Panel Mount Receptacle -90° Threaded Stud Termination (19R21-H Shown) Female Panel Mount Receptacle -90° Threaded Stud Termination (19R22-E Shown)



Male Protective Cap (19P21-R Shown)



Female Protective Cap (19P22-O Shown)



## 19 Series Accessories



Lubricating Spray C0001 for 16 Fl. Oz. Can





## 19 Series Device Ordering Information

### **CAM-TYPE PLUGS**

		Double Set Sci Male Plug	r <b>ew Termination</b> Female Plug
	White	19D22-W	19D24-W
	Black	19D22-E	19D24-E
	Brown	19D22-H	19D24-H
Cable Size: 350-500MCM Max Ampacity: 690A Voltage: 600V	Red	19D22-R	19D24-R
	Blue	19D22-B	19D24-B
	Orange	19D22-0	19D24-0
	Green	19D22-G	19D24-G
	Yellow	19D22-Y	19D24-Y

#### **CAM-TYPE PANEL MOUNT RECEPTACLES**

		1.00"L Threaded Male, 90°	l Stud Termination Female, 90°	
	White	19R21-W	19R22-W	
	Black	19R21-E	19R22-E	
	Brown	19R21-H	19R22-H	
Cable Size: 250-750MCM	Red	19R21-R	19R22-R	
Max Ampacity: 690A Voltage: 600V	Blue	19R21-B	19R22-B	
	Orange	19R21-0	19R22-0	
	Green	19R21-G	19R22-G	
	Yellow	19R21-Y	19R22-Y	

#### **COVERS**

	C	aps	
	Male	Female	
White	19P21-W	19P22-W	
Black	19P21-E	19P22-E	
Brown	19P21-H	19P22-H	
Red	19P21-R	19P22-R	
Blue	19P21-B	19P22-B	
Orange	19P21-0	19P22-0	
Green	19P21-G	19P22-G	
Yellow	19P21-Y	19P22-Y	

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

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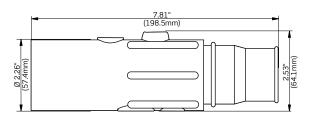
9.38" (238.1mm)

**Industrial Grade** 

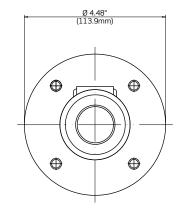
## 19 Series Technical Drawings

#### DIMENSIONS

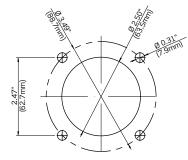
Male Detachable Plug - Double Set Screw



Front View 90° Panel Receptacle Common to Both Male & Female Configurations



Mounting Pattern Common to Both Male & Female Configurations



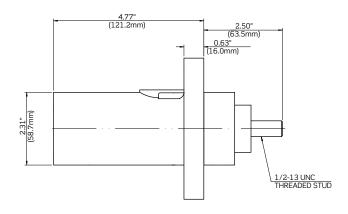


2.51" (63.6mm)

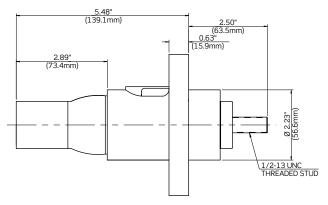
Ø 1.50" 38.1mm)

Female Detachable Plug - Double Set Screw

<u>3.00"</u> (76.2mm



Side View 90° Female Panel Receptacle, Threaded Stud

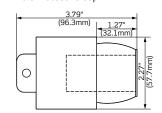


#### **AMPACITY TABLE**

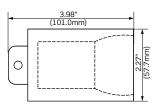
Cable Size	Ampacity
250	455
350	570
500	700
750	885
Excerpted from NEC Article 400.	Table 400.5(A)(2).

Excerpted from NEC Article 400, Table 400.5(A)(2), 90° column

#### Male Protective Cap



Female Protective Cap



#### For online resources visit leviton.com/rhinohide

# rhino-hide<sup>®</sup>

#### **Industrial Grade**

## 22 Series Latching Ball Nose Devices - 690A, 600V Max

Male Plug - Crimp Tube Termination, Neoprene Sleeve (22L21-R Shown)



Male Plug - Crimp Tube Termination, TPV Sleeve (22L22-SE Shown)



Male Panel Mount

Receptacle - 90°

Threaded Stud

(22R21-E Shown)

Female Plug - Crimp Tube Termination, Neoprene Sleeve (22L25-E Shown)



Female Plug - Crimp Tube Termination, TPV Sleeve (22L25-SR Shown)



Female Panel Mount Receptacle - 90° Threaded Stud (22R22-R Shown)

Male Panel Mount Receptacle -30° Threaded Stud (22R23-E Shown)



Female Panel Mount Receptacle -30° Threaded Stud (22R24-E Shown)





## **Single Pole Cam Devices**

**Industrial Grade** 

## 22 Series Latching Ball Nose Devices - 690A, 600V Max







Female Protective Cap (22P22-E Shown)

## 22 Series Accessories

"Com-A-Long" Assembly Tools 17CLM for Female Plug



17CLF for Male Plug



Lubricating Spray C0001 for 16 Fl. Oz. Can





## 22 Series Device Ordering Information

### **CAM-TYPE PLUGS**

		Crimp Tube Male Plug	<b>Termination</b> Female Plug	
	White	22L21-W	22L24-W	
	Black	22L21-E	22L24-E	
Cable Size: 250-350MCM	Brown	22L21-H	22L24-H	
Max Ampacity: 570A	Red	22L21-R	22L24-R	
Voltage: 600V	Blue	22L21-B	22L24-B	
Neoprene Sleeve	Orange	22L21-0	22L24-0	
	Green	22L21-G	22L24-G	
	Yellow	22L21-Y	22L24-Y	

		Crimp Tube	Termination	
		Male Plug	Female Plug	
	White	22L22-W	22L25-W	
	Black	22L22-E	22L25-E	
Cable Size: 350-500MCM	Brown	22L22-H	22L25-H	
Max Ampacity: 690A	Red	22L22-R	22L25-R	
Voltage: 600V	Blue	22L22-B	22L25-B	
Neoprene Sleeve	Orange	22L22-0	22L25-0	
	Green	22L22-G	22L25-G	
	Yellow	22L22-Y	22L25-Y	

#### Crimp Tube Termination

		Male Plug	Female Plug	
	White	22L22-SW	22L25-SW	
	Black	22L22-SE	22L25-SE	
Cable Size: 350-500MCM	Brown	22L22-SH	22L25-SH	
Max Ampacity: 690A	Red	22L22-SR	22L25-SR	
Voltage: 600V	Blue	22L22-SB	22L25-SB	
TPV Sleeve	Orange	22L22-S0	22L25-SO	
	Green	22L22-SG	22L25-SG	
	Yellow	22L22-SY	22L25-SY	

Crimp Tube Termination Male Plug Female Plug						
	White	22L23-W	22L26-W			
	Black	22L23-E	22L26-E			
Cable Size: 500-750MCM	Brown	22L23-H	22L26-H			
Max Ampacity: 690A	Red	22L23-R	22L26-R			
Voltage: 600V	Blue	22L23-B	22L26-B			
Neoprene Sleeve	Orange	22L23-0	22L26-0			
	Green	22L23-G	22L26-G			
	Yellow	22L23-Y	22L26-Y			



## 22 Series Device Ordering Information

#### **CAM-TYPE PANEL MOUNT RECEPTACLES**

		1.00"L Threaded	Stud Termination		
		Male, 90°	Female, 90°	Male, 30°	Female, 30°
	White	22R21-W	22R22-W	22R23-W	22R24-W
	Black	22R21-E	22R22-E	22R23-E	22R24-E
	Brown	22R21-H	22R22-H	22R23-H	22R24-H
Cable Size: 250-750MCM	Red	22R21-R	22R22-R	22R23-R	22R24-R
Max Ampacity: 690A Voltage: 600V	Blue	22R21-B	22R22-B	22R23-B	22R24-B
voltage. 000 v	Orange	22R21-0	22R22-0	22R23-0	22R24-0
	Green	22R21-G	22R22-G	22R23-G	22R24-G
	Yellow	22R21-Y	22R22-Y	22R23-Y	22R24-Y
		1 00"L Throadod	Stud Termination		
		Female, 15°	w/microswitch		
	White	22R26-W	22R28-W		

	White	22R26-W	22R28-W
Cable Size: 250-750MCM Max Ampacity: 690A	Black	22R26-E	22R28-E
Voltage: 600V	Red	22R26-R	22R28-R
Tottage: 0001	Green	22R26-G	_

#### COVERS

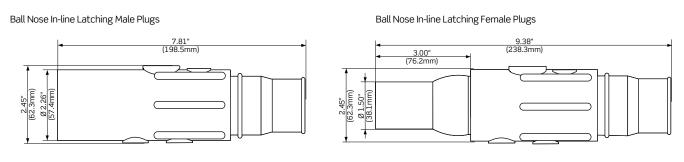
Caps			
	Male	Female	
White	22P21-W	22P22-W	
Black	22P21-E	22P22-E	
Brown	22P21-H	22P22-H	
Red	22P21-R	22P22-R	
Blue	22P21-B	22P22-B	
Orange	22P21-0	22P22-0	
Green	22P21-G	22P22-G	
Yellow	22P21-Y	22P22-Y	

## **Single Pole Cam Devices**

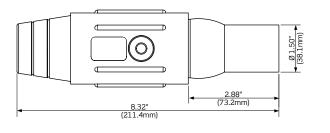
#### **Industrial Grade**

## 22 Series Device Technical Drawings

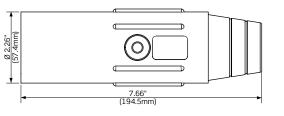
#### DIMENSIONS



Ball Nose In-line Latching Male Plugs S-Series

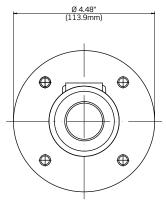


Ball Nose In-line Latching Female Plugs S-Series

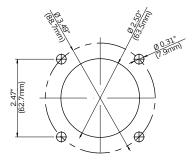


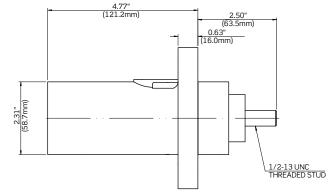
Side View 90° Male Panel Receptacle, Threaded Stud

Front View 90° Male Panel Receptacle Common to Both Male & Female Configurations

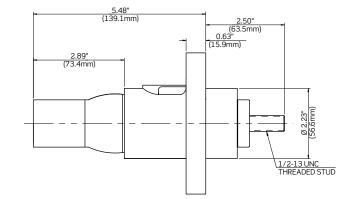


Mounting Pattern Common to Both Male & Female Configurations





Side View 90° Female Panel Receptacle, Threaded Stud

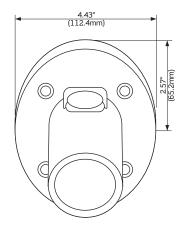




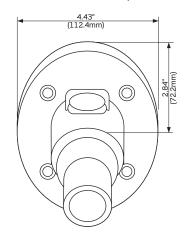
## 22 Series Device Technical Drawings

#### DIMENSIONS

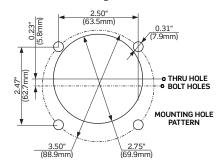
Front View 30° Male Panel Receptacle



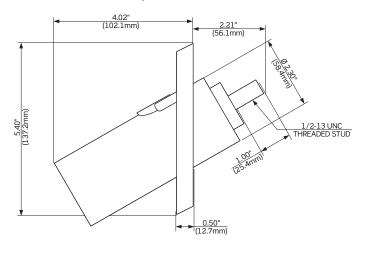
Front View 30° Female Panel Receptacle



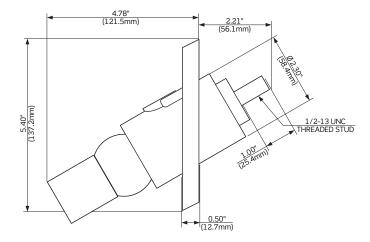
Mounting Pattern Common to Both Male & Female Configurations



Side View 30° Male Panel Receptacle, Threaded Stud

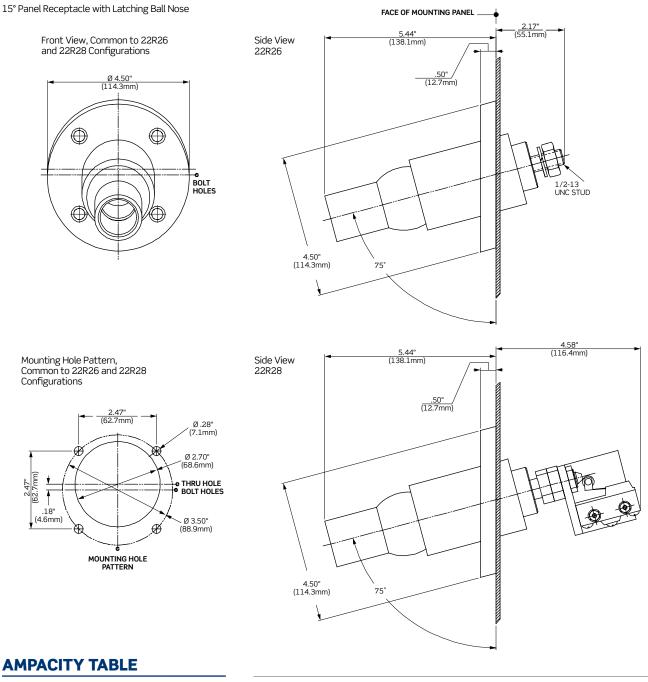


Side View 30° Female Panel Receptacle, Threaded Stud



## 22 Series Device Technical Drawings

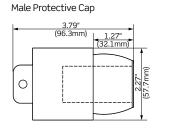
#### DIMENSIONS



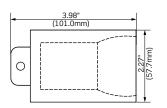
#### **AMPACITY TABLE**

Cable Size	Ampacity
250	455
350	570
500	700
750	885

Excerpted from NEC Article 400, Table 400.5(A)(2), 90° column



Female Protective Cap



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# LEVITON®

## **Single Pole Cam Devices**

**Industrial Grade** 

### 23 Series Latching Taper Nose Plugs - 690A, 600V Max



## 23 Series Device Ordering Information

#### **CAM-TYPE PLUGS**

	Crimp Tube Termination Male Plug Female Plug					
	White	23L22-W	23L25-W			
	Black	23L22-E	23L25-E			
Cable Size: 350-500MCM	Brown	23L22-H	23L25-H			
Max Ampacity: 690A	Red	23L22-R	23L25-R			
Voltage: 600V	Blue	23L22-B	23L25-B			
Neoprene Sleeve	Orange	23L22-0	23L25-0			
	Green	23L22-G	23L25-G			
	Yellow	23L22-Y	23L25-Y			

		Crimp Tube Male Plug	e Termination Female Plug	
	White	23L23-W	23L26-W	
	Black	23L23-E	23L26-E	
Cable Size: 500-750MCM	Brown	23L23-H	23L26-H	
Max Ampacity: 690A	Red	23L23-R	23L26-R	
Voltage: 600V	Blue	23L23-B	23L26-B	
Neoprene Sleeve	Orange	23L23-0	23L26-0	
	Green	23L23-G	23L26-G	
	Yellow	23L23-Y	23L26-Y	

#### **CAM-TYPE PANEL MOUNT RECEPTACLES**

		1.00"L Threaded Male, 30°	<b>l Stud Termination</b> Female, 30°	
	White	23R23-W	23R24-W	
	Black	23R23-E	23R24-E	
	Brown	23R23-H	23R24-H	
Cable Size: 250-750MCM	Red	23R23-R	23R24-R	
Max Ampacity: 690A Voltage: 600V	Blue	23R23-B	23R24-B	
Tottager 000 T	Orange	23R23-0	23R24-0	
	Green	23R23-G	23R24-G	
	Yellow	23R23-Y	23R24-Y	

#### **COVERS**

Caps			
	Male	Female	
White	23P21-W	23P22-W	
Black	23P21-E	23P22-E	
Brown	23P21-H	23P22-H	
Red	23P21-R	23P22-R	
Blue	23P21-B	23P22-B	
Orange	23P21-0	23P22-0	
Green	23P21-G	23P22-G	
Yellow	23P21-Y	23P22-Y	

Note: Some items may require extended lead times; always consult with your local sales representative for current availability.

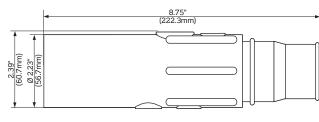
# rhino-hide<sup>®</sup>

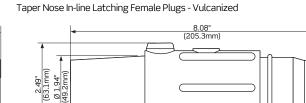


## 23 Series Technical Drawings

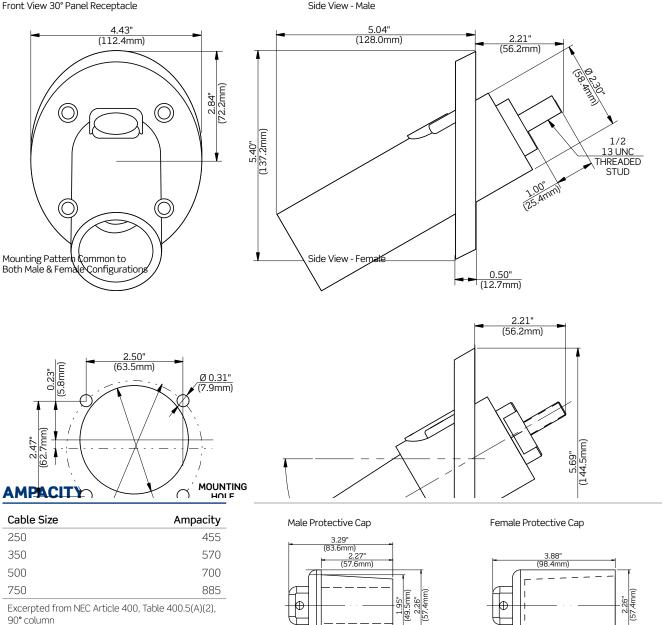
#### DIMENSIONS











## rhino-hide<sup>®</sup>

**Industrial Grade** 

## 49 Series Male and Female Plugs, 1135A Max

Color-coded connector insulator for quick, visual identification of circuit and phase connections. Available colors include: Black, White, Red, Blue, Green, Yellow, Orange , Purple<sup>1</sup>, Gray<sup>1</sup> and Brown\*\* UV stable, high-performance TPV insulator resists fading and cracking for greater service life Ideal for replacement; plugs mate with other manufacturers' high-amperage single pole plugs and receptacles for fast, easy change-out Male contact tip is over-plated with Contacts machined from a gold high conductivity copper alloy and silver-plated for corrosion resistance and superior conductivity Contacts offered by cable size for the most secure TPV dust cap protects contacts connection. Each contact is designed for a specific cable size ranging from 313 MCM through 777 MCM when disconnected Coupler Color-coded, metal in-line coupler prevents separation of connectors and identifies phase

\*\* For additional colors, consult factory. <sup>1</sup>Select configurations only. See ordering information for details



## Single Pole High Amperage Devices

**Industrial Grade** 

## 49 Series Panel Mounted Receptacles, 1135A Max



# Single Pole High Amperage Devices

## rhino-hide<sup>®</sup>

**Industrial Grade** 

## 49 Series Device Ordering Information

#### **MALE PLUGS**

Max Ampacity Conductor Size	636A 313 MCM	796A 444 MCM	898A 535 MCM	1009A 646 MCM	1135A 777 MCM	Replacement Sleeve
White	49M31-W	49M44-W	49M53-W	49M64-W	49M77-W	49MSL-W
Black	49M31-E	49M44-E	49M53-E	49M64-E	49M77-E	49MSL-E
Brown	49M31-H	49M44-H	49M53-H	49M64-H	49M77-H	49MSL-H
Red	49M31-R	49M44-R	49M53-R	49M64-R	49M77-R	49MSL-R
Blue	49M31-B	49M44-B	49M53-B	49M64-B	49M77-B	49MSL-B
Orange	49M31-0	49M44-0	49M53-0	49M64-0	49M77-0	49MSL-0
Green	49M31-G	49M44-G	49M53-G	49M64-G	49M77-G	49MSL-G
Yellow	49M31-Y	49M44-Y	49M53-Y	49M64-Y	49M77-Y	49MSL-Y
Purple	49M31-P	49M44-P	49M53-P	49M64-P	49M77-P	49MSL-P
Gray	49M31-GY	49M44-GY	49M53-GY	49M64-GY	49M77-GY	49MSL-GY
Replacement Contact	49M31-C	49M44-C	49M53-C	49M64-C	49M77-C	—

#### **FEMALE PLUGS**

Max Ampacity	636A	796A	898A	1009A	1135A	Replacement
Conductor Size	313 MCM	444 MCM	535 MCM	646 MCM	777 MCM	Sleeve
White	49F31-W	49F44-W	49F53-W	49F64-W	49F77-W	49FSL-W
Black	49F31-E	49F44-E	49F53-E	49F64-E	49F77-E	49FSL-E
Brown	49F31-H	49F44-H	49F53-H	49F64-H	49F77-H	49FSL-H
Red	49F31-R	49F44-R	49F53-R	49F64-R	49F77-R	49FSL-R
Blue	49F31-B	49F44-B	49F53-B	49F64-B	49F77-B	49FSL-B
Orange	49F31-0	49F44-0	49F53-0	49F64-0	49F77-0	49FSL-0
Green	49F31-G	49F44-G	49F53-G	49F64-G	49F77-G	49FSL-G
Yellow	49F31-Y	49F44-Y	49F53-Y	49F64-Y	49F77-Y	49FSL-Y
Purple	49F31-P	49F44-P	49M53-P	49F64-P	49M77-P	49FSL-P
Gray	49F31-GY	49F44-GY	49F53-GY	49F64-GY	49F77-GY	49FSL-GY
Replacement Contact	49F31-C	49F44-C	49F53-C	49F64-C	49F77-C	_



## 49 Series Device Ordering Information

#### PANEL MOUNT RECEPTACLES

		Complete Male Receptacle		Complete Female Receptacle	
		Single Hole Bus Bar	Double Hole Bus Bar	Single Hole Bus Bar	Double Hole Bus Bar
	White	49MR1-CW	49MR2-CW	49FR1-CW	49FR2-CW
Receptacle Spacing:	Black	49MR1-CE	49MR2-CE	49FR1-CE	49FR2-CE
	Brown	49MR1-CH	49MR2-CH	49FR1-CH	49FR2-CH
1/4" Horizontally,	Red	49MR1-CR	49MR2-CR	49FR1-CR	49FR2-CR
3-1/4" Vertically	Blue	49MR1-CB	49MR2-CB	49FR1-CB	49FR2-CB
Cable Size: 313-777MCM	Orange	49MR1-CO	49MR2-CO	49FR1-CO	49FR2-CO
Max Ampacity: 1135A	Green	49MR1-CG	49MR2-CG	49FR1-CG	49FR2-CG
Voltage: 1000V	Yellow	49MR1-CY	49MR2-CY	49FR1-CY	49FR2-CY
	Purple	49MR1-CP	49MR2-CP	49FR1-CP	49FR2-CP
	Gray	49MR1-CGY	49MR2-CGY	49FR1-CGY	49FR2-CGY
		Complete Ma	le Receptacle	Complete Fem	ale Receptacle
		<b>Complete Ma</b> Single Hole Bus Bar	<b>le Receptacle</b> Double Hole Bus Bar	<b>Complete Fem</b> Single Hole Bus Bar	a <b>le Receptacle</b> Double Hole Bus Bar
	White	Single Hole	Double Hole	Single Hole	Double Hole
	White Black	Single Hole Bus Bar	Double Hole Bus Bar	Single Hole Bus Bar	Double Hole Bus Bar
		Single Hole Bus Bar 49MR1-XW	Double Hole Bus Bar 49MR2-XW	Single Hole Bus Bar 49FR1-XW	Double Hole Bus Bar 49FR2-XW
Receptacle Spacing:	Black	Single Hole Bus Bar 49MR1-XW 49MR1-XE	Double Hole Bus Bar 49MR2-XW 49MR2-XE	Single Hole Bus Bar 49FR1-XW 49FR1-XE	Double Hole Bus Bar 49FR2-XW 49FR2-XE
1/4" Horizontally and Vertically	Black Brown	Single Hole Bus Bar 49MR1-XW 49MR1-XE 49MR1-XH	Double Hole Bus Bar 49MR2-XW 49MR2-XE 49MR2-XH	Single Hole Bus Bar 49FR1-XW 49FR1-XE 49FR1-XH	Double Hole Bus Bar 49FR2-XW 49FR2-XE 49FR2-XH
1/4" Horizontally and Vertically Cable Size: 313-777MCM	Black Brown Red	Single Hole Bus Bar 49MR1-XW 49MR1-XE 49MR1-XH 49MR1-XR	Double Hole Bus Bar 49MR2-XW 49MR2-XE 49MR2-XH 49MR2-XR	Single Hole Bus Bar 49FR1-XW 49FR1-XE 49FR1-XH 49FR1-XR	Double Hole Bus Bar 49FR2-XW 49FR2-XE 49FR2-XH 49FR2-XR
1/4" Horizontally and Vertically Cable Size: 313-777MCM Max Ampacity: 1135A	Black Brown Red Blue	Single Hole Bus Bar 49MR1-XW 49MR1-XE 49MR1-XH 49MR1-XR 49MR1-XB	Double Hole Bus Bar 49MR2-XW 49MR2-XE 49MR2-XH 49MR2-XR 49MR2-XB	Single Hole Bus Bar 49FR1-XW 49FR1-XE 49FR1-XH 49FR1-XR 49FR1-XB	Double Hole Bus Bar 49FR2-XW 49FR2-XE 49FR2-XH 49FR2-XR 49FR2-XB
1/4" Horizontally and Vertically Cable Size: 313-777MCM	Black Brown Red Blue Orange	Single Hole Bus Bar   49MR1-XW   49MR1-XE   49MR1-XH   49MR1-XR   49MR1-XR   49MR1-XB   49MR1-XO	Double Hole Bus Bar   49MR2-XW   49MR2-XE   49MR2-XH   49MR2-XR   49MR2-XB   49MR2-XO	Single Hole Bus Bar 49FR1-XW 49FR1-XE 49FR1-XH 49FR1-XR 49FR1-XB 49FR1-XO	Double Hole Bus Bar 49FR2-XW 49FR2-XE 49FR2-XH 49FR2-XR 49FR2-XB 49FR2-XO
1/4" Horizontally and Vertically Cable Size: 313-777MCM Max Ampacity: 1135A	Black Brown Red Blue Orange Green	Single Hole Bus Bar   49MR1-XW   49MR1-XE   49MR1-XH   49MR1-XR   49MR1-XR   49MR1-XS   49MR1-XO   49MR1-XG	Double Hole Bus Bar   49MR2-XW   49MR2-XK   49MR2-XH   49MR2-XR   49MR2-XR   49MR2-XB   49MR2-XO   49MR2-XG	Single Hole Bus Bar 49FR1-XW 49FR1-XE 49FR1-XH 49FR1-XR 49FR1-XB 49FR1-XO 49FR1-XG	Double Hole Bus Bar 49FR2-XW 49FR2-XE 49FR2-XH 49FR2-XR 49FR2-XB 49FR2-XO 49FR2-XG

# rhino-hide<sup>®</sup>

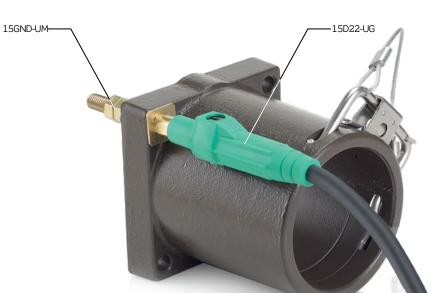
**Industrial Grade** 

## 49 Series Device Ordering Information

### **ACCESSORIES AND REPLACEMENT PARTS**

	Description	Color	Material	Cat. No.
	Clevis Pin for In-Line Connector Coupler	Silver	Stainless Steel	49PNR
	Male Dust Cap	Black	High-Performance TPV	49DSM
	Female Dust Cap	Black	High-Performance TPV	49DSF
	In-line Coupler	White	Powder-coated aluminum	49COP-W
	In-line Coupler	Black	Powder-coated aluminum	49COP-E
For Plugs	In-line Coupler	Brown	Powder-coated aluminum	49COP-H
riugs	In-line Coupler	Red	Powder-coated aluminum	49COP-R
	In-line Coupler	Blue	Powder-coated aluminum	49COP-B
	In-line Coupler	Orange	Powder-coated aluminum	49COP-0
	In-line Coupler	Green	Powder-coated aluminum	49COP-G
	In-line Coupler	Yellow	Powder-coated aluminum	49COP-Y
	Clevis Pin for Panel Mount Receptacle	Silver	Stainless Steel	49PNR*
For	Dust Cover Cap for Male or Female Receptacle	Black	High-Performance TPV	49DSR
Panel Mounted	Receptacle Housing Gasket	Black	Rubber	49GAS
Receptacles	Locking Ground Pin	_	Brass	15GND-UM
	Locking Ground Plug (Female)	Green	TPV/Brass	15D22-UG

\*Does not fit "X" Version.



#### **AMPACITY RATINGS IN 40° AMBIENT FOR HIGH AMPERAGE APPLICATIONS**

Cable Size	90°C (194°)	125°C (257°F)
313 MCM	513	636
444 MCM	642	796
535 MCM	724	898
646 MCM	814	1009
777 MCM	916	1135

<sup>+</sup> For panel receptacle applications requiring a ground connection, simply install the 15GND-M locking ground pin in place of one of the panel receptacle mounting bolts. The locking ground pin accepts our standard 15D22 series single pole cam connectors as shown in the diagram above.

15GND-UM





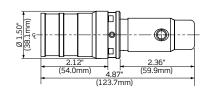
## Single Pole High Amperage Devices

**Industrial Grade** 

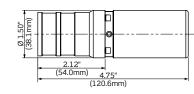
## 49 Series Device Technical Drawings

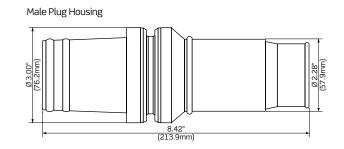
#### DIMENSIONS

Male Contact

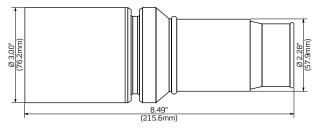


Female Contact

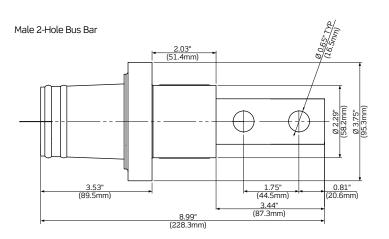


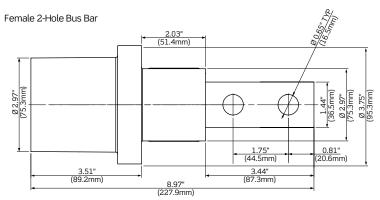


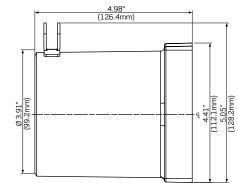
Female Plug Housing



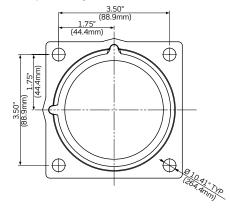
Panel Receptacle Housing







Panel Receptacle Flange



# Also Available! Rhino-Hide<sup>®</sup> NEMA Wiring Devices

Ideal for physically demanding environments that suffer from exposure to weather, chemicals, vibration, and physical strain

### **Common Applications**

- **Oil Drilling Rigs**
- **Mining Operations**
- Shore Power
- Wind Power Turbines
- Construction Sites



### Features & Benefits

- Submersible, watertight, and dust-tight for outdoor and other wet environments; rated to NEMA Enclosure Type 3R, 4, 4X, 6, 6P, 12, 13 and IP66/IP67/IP68/IP69K (high-pressure steam cleaning); ABS certified suitable for marine environments
- Coated aluminum components provide superior corrosion resistance to bare aluminum, especially in salt-air environments, which extends service life of the device and facilitates easier installation and removal of threaded components
- Threaded connections make these devices ideal in high-vibration environments such as oil-drilling and mining operations
- Nickel-plated brass electrical contacts provide superior electrical performance and corrosion resistance for extended service life
- Devices are compatible with other manufacturers' devices as well as standard NEMA configured devices
- Available in seven voltage/amperage configurations

Visit our Website at: www.leviton.com/rhinohide email: industrial@leviton.com

#### Leviton Manufacturing Co., Inc. 201 N Service Rd, Melville, NY 11747



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