Single Pole Cam-Type Latching Connectors

APPLICATION
Leviton Single Pole Latching Cam Connectors are intended to provide power to ships at dockside. They are recognized by ETL Labs to meet U.S. Navy specifications.

These devices are designed for the environments associated with dockside applications and exhibit positive lock characteristics.

IN-LINE CONNECTORS - CRIMPED TERMINALS
600 VOLTS – 690 AMPS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cable Size</th>
<th>Male Cat. No.</th>
<th>Female Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Pole Cam Connector – Crimped Ball Nose</td>
<td>200-350MCM</td>
<td>22L21</td>
<td>22L24</td>
</tr>
<tr>
<td></td>
<td>350-500MCM</td>
<td>22L22</td>
<td>22L25</td>
</tr>
<tr>
<td></td>
<td>500-750MCM</td>
<td>22L23</td>
<td>22L26</td>
</tr>
<tr>
<td>Single Pole Cam Connector – Crimped Ball Nose</td>
<td>250-350MCM</td>
<td>23L21</td>
<td>23L24</td>
</tr>
<tr>
<td></td>
<td>350-500MCM</td>
<td>23L22</td>
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<td>500-750MCM</td>
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</tr>
</tbody>
</table>

PANEL RECEPTACLES - THREADED STUD
600 VOLTS – 690 AMPS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cable Size</th>
<th>90 Degree</th>
<th>30 Degree</th>
<th>15 Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Pole Cam Panel Receptacle Threaded Stud Ball Nose</td>
<td>22R21-Male</td>
<td>22R22-Female*</td>
<td>22R23-Male</td>
<td>22R24-Female*</td>
</tr>
<tr>
<td></td>
<td>22R22-Male</td>
<td>22R23-Male</td>
<td>22R24-Female*</td>
<td>22R26-Female*</td>
</tr>
<tr>
<td>Single Pole Cam Panel Receptacle Threaded Stud Taper Nose</td>
<td>23R21-Male</td>
<td>23R22-Female*</td>
<td>23R23-Male</td>
<td>23R24-Female*</td>
</tr>
</tbody>
</table>

* Also available with micro switch

PROTECTIVE CAPS

<table>
<thead>
<tr>
<th>BALL NOSE</th>
<th>TAPER NOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>MALE</td>
</tr>
<tr>
<td>19P21</td>
<td>19P22</td>
</tr>
<tr>
<td>17P21</td>
<td>17P22</td>
</tr>
</tbody>
</table>

COLOR

For color selections, add the suffix to the catalog number as follows:
Black (-E), Red (-R), White (-W), Blue (-B), Green (-G), Yellow (-Y), Orange (-O), Brown (-H)
Single Pole Cam-Type Connectors

FEATURES AND BENEFITS
• Intermateable and compatible with competitive cam-type products—can be retrofitted to existing locations and power distribution systems
• Latching feature will not vibrate, twist or turn loose
• Locking and reinforcing ring won’t melt, break or crack
• Solid brass contact for both male & female
• Shatter and crack proof Neoprene insulator/husk
• Prevents arcing or burning—no movement of contact surfaces
• Self compensating for wear—slit and cam in male contact provides spring action for longer usage
• Quick connect/disconnect—twist and pull provided by double cam male and cam button in female
• High conductivity—positive, vibration-proof connection provided by double cam design
• Wide range of applications—usable with a wide range of cable and amperage ratings
• Male contact equipped with dead front for added safety

22 Series
23 Series
Single Pole Cam-Type Connectors

22 Series
23 Series

90° MALE PANEL RECEPTACLE THREADED STUD—Cat. No. 23R21

90° FEMALE PANEL RECEPTACLE THREADED STUD—Cat. No. 23R22

BALL NOSE IN-LINE LATCHING MALE CONNECTORS—CRIMPED—Cat. No. 22L21

BALL NOSE IN-LINE LATCHING FEMALE CONNECTORS—CRIMPED—Cat. No. 22L24

15° FEMALE PANEL RECEPTACLE
22R26 22 series female
Single Pole Cam-Type Connectors

ELECTRICAL TESTS

Dielectric Withstand Test: Mated male and female connectors are placed in water with the two conductors extended out of the water. Test potential of 2200 VAC is applied between the conductor and water for 1 minute. A detection circuit is used to determine if breakdown of insulation occurred. No breakdown of the insulation shall occur.

Leakage Current Test: Mated male and female connectors are placed in water with the two conductors extended out of the water. Test potential of 600 VAC is applied between the conductor and water and the leakage current is measured. Leakage current not to exceed 0.5mA.

Internal and External Temperature Test: Internal and external temperature rises are measured while 690 Amp current is passed thru the mated connectors by the use of thermocouples attached to the male and female contacts and insulating sleeves. Temperature rise not to exceed 45°C.

Fault Test: 1000 Amp, 60 Hz current is passed thru the mated male and female connectors for a minimum of 3 cycles. No breakdown of the insulation shall occur.

MECHANICAL TESTS

Drop Test: Mated male and female connectors are held horizontally at 36” above a concrete floor and dropped a total of 50 times. No damage to the connectors shall occur.

Crush Test: Mated and unmated male and female connectors are subjected to a 500 lb. compression force for a test period of 1 minute. No damage to the connectors shall occur.

Impact Test: A 10 lb. weight with a 2” diameter flat face is dropped from a height of 18 inches onto the mated male and female conductors. No breakage or deformation shall occur.

Tensile Test: A straight pull of 150 lbs. and a torque of 1 ft/lb is applied 6” from the end of the mated and female conductors. No loosening of the conductors shall occur.

Flame Test: Material in which the insulated sleeves are molded of are subject to 5 flame applications of on for 15 seconds and off for 15 seconds. After removal of flame, the material shall self extinguish within 1 minute.

ENVIRONMENTAL TESTS

Rain Test: Mated male and female connectors are subject to a continuous water spray for 1 hour at a rate of 18 inches per hour at 5 psi. Unmated connectors shall show no evidence of water penetration.

Watertight Test: Mated male and female connectors are immersed a minimum of 2” below water for a 24 hour period. Unmated connectors shall show no evidence of water penetration.

All Tests were performed by ETL Testing Laboratories to determine compliance to Navy Solicitation N00189-92-R-0316 using 500MCM conductors secured and vulcanized to the insulating sleeves. All samples successfully passed.