Circular Connector Features & Benefits

- **Patented EuroLock® on all Power and M16 style Connectors** - Easy field assembly – no special tools required to insert & extract contacts!
- **Built in Strain Relief for Braided Cable** - All Connectors EMI/RFI ready!
- **Quick Connect System** - Threaded & Twilock-in-one
- **Multiple Terminations** - Crimp, Solder, Dip Solder and Screw Terminal Solutions!
- **Pre-tinned Contacts** - Reliable, faster and safer means of soldering!
- **Reliable Connection** - Contacts with low plug-in force and high mating cycles!
- **Vibration Proof** - Spring loaded Socket Contact Technology!
- **IP67 & IP69K** - Ideal in spray down applications!
- **RoHS** - Environmentally compliant!
- **Other Styles**: Hermetic, Marine (IP68), Miniature / Push Pull

### M8 & M12 Signal
- **AWG**: 22 - 24 / **AMP**: 2 - 4

### M12 Power
- **AWG**: 16 - 20 / **AMP**: 16

### M16
- **CLOSE**
- **OPEN**
- **Twilock**
- **(M12/M16) Twintus**
- **AWG**: 14 - 28 / **AMP**: 3 - 20

### M23 RJ45 & PoE Fast Ethernet
- **AWG**: 15 - 28 / **AMP**: 2 & 8

### M23 Hybrid
- **3-in-1 Solution!**
- **Power, Signal & Ethernet!**
- **AWG**: 12 - 28 / **AMP**: 28

### M23 (Signal & Power)
- **AWG**: 12 - 28 / **AMP**: 8 - 28

### M23 Twilock & Twilock-S
- **Twilock-S (mates to Speedtec® by Intercontec / Tyco)**

### M27
- **AWG**: 17 - 26 / **AMP**: 8

### M40
- **AWG**: 6 - 17 / **AMP**: 28 & 55
<table>
<thead>
<tr>
<th>TYPE</th>
<th>M8 &amp; M12 Cordsets</th>
<th>M12</th>
<th>M16</th>
<th>M23</th>
<th>M23 POE Fast Ethernet</th>
<th>M23 Hybrid</th>
<th>M27</th>
<th>M40</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTACTS</td>
<td>Fixed</td>
<td>Crimp &amp; Screw</td>
<td>Crimp &amp; Dip Solder</td>
<td>Crimp, Solder &amp; Dip Solder</td>
<td>Crimp &amp; Dip Solder</td>
<td>Crimp, Solder &amp; Dip Solder</td>
<td>Crimp, Solder &amp; Dip Solder</td>
<td>Crimp</td>
</tr>
<tr>
<td>PIN-OUT</td>
<td>3, 4, 5, 6, 8</td>
<td>4, 5 (4 + PE)</td>
<td>3x1 mm, 3x2 mm, 7, 7+4, 4+4 (2-8 pos. config. avail.)</td>
<td>10, 15, 18</td>
<td>Signal: 6, 7, 9, 12, 16, 17, 19 Power: 6, 8, 9, 10 Ethernet: RJ45</td>
<td>4x2 (0.6 mm) Twinax for four twisted shielded pair &amp; 12 x 1.0 mm Power for</td>
<td>2x2 mm (Power)</td>
<td>4x1 mm (Signal) 4x0.6 mm (Ethernet)</td>
</tr>
<tr>
<td>AWG</td>
<td>22 - 24</td>
<td>S &amp; T Screw: 16 - 20 K &amp; L Crimp: 14 - 18</td>
<td>14 - 28</td>
<td>Signal: 14 - 28 Power: 12 - 26</td>
<td>22 - 28 on 0.6 mm 15 - 28 on 1.0 mm</td>
<td>12 - 28</td>
<td>17 - 26</td>
<td>6 - 17</td>
</tr>
<tr>
<td>AMPERE</td>
<td>2 - 4A</td>
<td>12 - 16A</td>
<td>3 - 20A</td>
<td>8 - 28A</td>
<td>2A, 8A</td>
<td>2A, 8A, 28A</td>
<td>8A, 8A</td>
<td>28 &amp; 55A</td>
</tr>
<tr>
<td>VOLT</td>
<td>30 - 240V</td>
<td>63 - 630V</td>
<td>300 - 630V</td>
<td>100 - 300V &amp; 160 - 600V</td>
<td>60V, 160V</td>
<td>60V, 300V, 630V</td>
<td>150V, 150V</td>
<td>300 - 600V</td>
</tr>
<tr>
<td>CABLE RANGE</td>
<td>Overmolded</td>
<td>3 - 11 mm (.12&quot; - .43&quot;)</td>
<td>2 - 11 mm (.08&quot; - .43&quot;)</td>
<td>Signal: 3 - 17 mm (.12&quot; - .67&quot;) Power: 7 - 17 mm (.28&quot; - .67&quot;)</td>
<td>11 - 17 mm (.43&quot; - .67&quot;)</td>
<td>3 - 17 mm (.12&quot; - .67&quot;)</td>
<td>7 - 17 mm (.28&quot; - .67&quot;)</td>
<td>13 - 28 mm (.51&quot; - 1.10&quot;)</td>
</tr>
<tr>
<td>TEMPERATURE</td>
<td>-22°F to 158°F</td>
<td>-40°F to 257°F (-40°C to 125°C)</td>
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<tr>
<td>OPTIONS</td>
<td>2,3,5,10 meter lengths, PVC and PUR Cable, straight, right angle, flying lead options, A, B, D Coding</td>
<td>Threaded, Over mold cord sets, 316L Stainless Steel, Black Chrome-Plated</td>
<td>Threaded, Twilock (Quick Connect), Over mold cord sets, 316L Stainless Steel, Twintus, Die Cast, Nickel Plated Brass</td>
<td>Threaded, Twilock (Quick Connect), Twilock-5 (mates to Spedtec®) Elbows, 316L Stainless Steel, Intrinsically Safe (IS), RJ45, Solution with Euro-Lock, Over mold cord sets, Multi hole inserts and Flex nut</td>
<td>Threaded, Straight &amp; Elbow</td>
<td>Threaded and Twilock (Quick Connect), Nickel Plated Brass, 316L Stainless Steel</td>
<td>Threaded</td>
<td>316L Stainless Steel</td>
</tr>
<tr>
<td>UNIQUENESS</td>
<td>Compact, Flexible, Nickel Plated Brass, IP 67, Low Profile, Custom lengths available</td>
<td>Low profile, High power transmission, IP67 &amp; IP69K, Robust metal housing, EMI ready UL, VDE</td>
<td>35% Smaller than M23, EMI-ready, patented Euro-Lock, IP67 &amp; IP69K (washdown), robust in comparison to plastic Connectors, UR, CSA, VDE</td>
<td>Low profile, compact, Twintus M16/M16 M16 with M12 8-pos M16 with M12 12-Pos. (a Twintus option only)</td>
<td>Euro-Lock on Power EMI-Ready, Twilock in Power &amp; Signal, Twilock-5 mates to Speedtec®, Black Chromated, 90° Rotating Elbow, Conduit and Flange Adapter, RJ45 in Ex-ll (I), IP67 &amp; IP69K (washdown), robust, UR, CSA, VDE</td>
<td>High speed (10 Gigabit) Ethernet - Power - Signal all in one, End to end shielding to prevent crosstalk, CAT 7, Multi-Bus II, Low profile, cost savings - fewer cables &amp; Connectors, end to end shielding, IP67/IP69K (washdown), robust in comparison to plastic Connectors</td>
<td>Space Savings, All-in-one solution, data transfer of up to 500 Mbits/s, CAT 5e, Cost Savings - Fewer cables &amp; Connectors, end to end shielding, IP67/IP69K (washdown), Twilock in Power</td>
<td>Multiple Circuits in-one, highest pin-out (28), IP67 &amp; IP69K (washdown), robust in comparison to plastic Connectors</td>
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<tr>
<td>APPLICATIONS</td>
<td>Conveyors, Motors, Sensors, Encoders, Network Devices, Robotics</td>
<td>AC/DC Motors, Motor Control Switches, Aux. Power Distribution, LED &amp; Conventional Lighting, Network Devices, Robotics</td>
<td>Low profile power applications, FluidControl Switches, Daisy Chain Solar, Ethernet, Encoder Feedback systems, AC/DC Motors, Twintus M12 mate to Phoenix, Turrck, Belden, Molex</td>
<td>Motors &amp; Encoders, Motion Control, Robotics, Conveyors, Proibus/Interbus Connections</td>
<td>Weight, space &amp; reliability in high speed/dynamic environments are huge factors in Robotics</td>
<td>Small Motor</td>
<td>Sensors, Boating</td>
<td>Heavy Motors on Printing Presses, Conveyors, Robots for Automotive, where an M23 is in action, Where heavy masses are being moved</td>
</tr>
</tbody>
</table>

Qualifying Questions?
1. Is connector for a new design? (Preferred)
2. If for existing application, what brand to mate?
3. How many contacts?
4. AWG per contact?
5. AMP/Volt requirements?
6. Cable Diameter?
7. Body Style (Straight, Elbow, etc.)
8. Material (Nickel Plated Brass, 316L Stainless Steel)