## The PULS Advantage

Issue 20

For Power Supplies, the most common wire termination method is screw terminals. However, there are other options, and how does a user select one over the other? PULS offers three types of ways to secure electrical wires to Power Supplies. Screw Terminals, Spring Clamp Terminals and Push-In Terminals.

#### Screw

Screw Terminals have been a proven and accepted method for connecting wires for many years and can accept either solid or stranded wire, with or without ferrules.



PULS Power Supplies have extra large screw terminals to allow for larger wire diameters and in some cases two wires in the same terminal to make wiring simple. Specific instructions are listed in each PULS data sheet or installation manual for proper wire stripping, and torque requirements. The large terminals avoid the need for special



tools. Simply insert the wire, and tighten screws using either a phillips or straight blade screw driver. This ensurezs a reliable connection with low contact resistance.

### **Terminal Options**

#### Spring Clamps

Spring Clamp terminals provide a quick and reliable connection. that are perfect for applications

with high vibration, or wide temperature fluctuations as the spring maintains a constant force

on each wire. The PULS spring Clamps allow a wide range of wire sizes, while



maintaining constant pressure on the wire, holding it firmly in place. Spring Clamp terminals also provide a gas tight connection between the terminal and wire minimizing corrosion for increased

> reliability. The PULS spring Clamp terminals are bi-stable, which means that they are all the way open or all the way closed, there

is no in-between. Unlike Cage Clamps, the integrated release levers, means no tools are required to insert or remove the wire, therefore, greatly reducing wiring time! PULS Spring Clamps can accept either solid or stranded wire, with or without ferrules and meet all international standards for contact pressure and pull out force.

#### Push-In

Push In terminals are the latest innovation in wiring. Designed initially for customers with robotic wiring systems, this method can highly automate the wiring process and save time and money. Wires are pushed in to the front of the power supply



easily, with or without an automated robot. An additional advantage is that there is no additional tool required to insert wires, so time is saved. The PULS Push In

terminals utilize a Spring Clamp to securely hold the wire in place. Like Spring Clamp terminals, Push In terminals are well suited for applications with high vibration and



wide temperature fluctuations. Push In terminals can

accept either solid or stranded wire, but stranded wire requires a ferrule.



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	Screw	Spring Clamp	Push-In
Advantages	<ul> <li>Good for technicians that like to "feel" the torque ap- plied</li> <li>The most common connec- tion type</li> </ul>	<ul> <li>Reduces wiring time</li> <li>Very robust under extreme conditions: temperature change, shock, and vibration</li> <li>No maintenance required</li> </ul>	<ul> <li>Reduces wiring time</li> <li>Very robust under extreme conditions: temperature change, Shock and vibration</li> <li>No maintenance is required</li> <li>Can be used with robotic wiring systems</li> </ul>
Details	<ul> <li>Proper screw torque is important and needs to be monitored</li> <li>Regular maintenance for tightening the screws may be considered as extra costs</li> <li>Not recommended for ap- plications with high vibration or wide temperature fluctua- tions</li> </ul>	<ul> <li>Robust design</li> <li>Tool free installation</li> </ul>	<ul> <li>Requires ferrules with stranded wire</li> <li>Solid Wire</li> </ul>
Models	<ul> <li>Most CS Series units except those with -S1 Suffix</li> <li>Most CP Series units except those with -S1 and -S2 Suffix</li> <li>Compact Miniline</li> <li>PIANO</li> </ul>	models	<ul> <li>CP Models with -S2 Suffix</li> <li>PIANO Mini</li> </ul>

