

How Ribbon Cable Connectors Can Help You Cut Costs

By: Kevin Groth, Branch Manager, Heilind

Recently I worked with a commercial lighting products company that was looking for ways to cut its manufacturing and assembly costs. I got my hands on all the pertinent information about its product line and asked as many questions as I could think of to get focused on how I might best be able to help. As you can imagine, I asked about space limitations, the number of circuits, how many amps and so on.

In short order, we identified a huge opportunity. If the company replaced its ribbon cable connectors with mass termination connectors it could slash its cost per connector by 80%. With no loss of performance. And just like the ribbon cable connector, the mass termination connector featured insulation displacement. My customer made the move of course and the cost savings were immediate; over the next several years the savings will be substantial. In my line of work it doesn't get any better than that.

I'm convinced there are a lot more manufacturers that could be doing the same sort of connector trade-out and enjoying the same huge savings. Also, keep in mind that while my customer uncovered this cost advantage in the course of a "fresh look," the same opportunity for cost savings exists in front end design work. So if your original impulse is to go with a ribbon cable connector, make sure that you at least consider if the mass termination connector is an option. If so, you could save a boatload of money.

Switching from ribbon cable connectors to mass termination connectors

You won't lack for choices when it comes to mass termination connectors as there are several brand-name manufacturers of these components. First though, you'll have to determine if the mass termination connector is a feasible option. And feasibility will depend on two key factors:

1. **Space limitations** – As we all know, the trend in electronics is toward smaller, more compact product design. So if the space you're working with is very tight then a ribbon cable connector is most likely your only option. But if the space you're working with is a little bigger, you may be able to lock in big savings. (Mass termination connectors come in a wide range of sizes and Heilind stocks components as small as .050" centerline.)
2. **Amperage needs** – If your application is such that you need more than 13 amps per pin then a mass termination connector isn't going to work. But if you're currently using a ribbon cable connector you're already using a low amperage connection. So, assuming space is not an issue, the odds are excellent that you can swap out your ribbon cable connector for a mass termination connector and enjoy substantial cost-savings. Also, as noted earlier, the same substantial savings may be available in new product design.

Mass termination connectors are suitable for any number of industry applications, including: aerospace and defense, appliance, automotive, computer and consumer electronics, gaming, industrial and commercial, instrumentation and medical equipment and others.

So, there you have it. Making the switch from ribbon cable connectors to mass termination connectors is an easy trade-out that can – given the right circumstances – save a manufacturer as much as 80% per connector. For my commercial lighting products customer that amounted to over \$3.00 per connector. You just don't find too many opportunities like that.

