

Overview

Our team at ddb has constructed this article to help further the customer's, and our own staff's, understanding of cable entry systems. In this article we'll attempt to answer a few common questions and provide in-depth information regarding cable entry systems.

Cable entry systems

When selecting the right cable entry system, it's important to know about the two primary types. Essentially, one of these systems comes with connectors while the other kind doesn't.

Cable Entry Systems

Cable entry systems for cables without connectors don't come assembled with connectors. When electrical, hydraulic or pneumatic lines and stand cables are routed through panels or machines, technicians can seal the cut-outs these cables pass through. Seals for these kinds of entry systems are usually gland plates, self-sealing grommets or cable glands.

These sealing devices help protect the machine or enclosure from contaminants like liquids, dust and dirt. For times when the technician is entering only a single cable or a few cables, self-sealing grommets and cable glands are the standard choices. When you're routing many cables with different diameters, a gland plate is a better selection. With certain cable glands, technicians may be able to achieve ingress protection classes, with some going up to IP66/IP68 or allowing high cable densities.

As an alternative to hygienic stainless steel cable glands, membrane-based cable entry plates can be utilized in environments where hygiene is essential, such as those in the pharmaceutical or food industry. Since the cable entry plates lack recesses that allow dirt collection and feature a very smooth surface, they're well-suited for the industries mentioned previously. They're also crafted out of Food and Drug Administration (FDA)-compliant material.

Split Cable Entry Systems

Split cable entry systems for cables with connectors, otherwise known as pre-terminated systems, already come with connectors assembled. Since they feature split cable entry, they come with a couple advantages. One benefit is that users don't have to void their pre-terminated cables warranty, as the connectors don't have to be soldered or cut after cable entry.

Another advantage of these kinds of cable entry systems is how they're usually constructed around the existing lines. Most split cable entry systems consist of one or multiple split sealing grommets and a split hard frame. Generally, frames are constructed out of plastic, but they can sometimes be crafted with stainless steel for hygienic applications. Additionally, the grommets usually consist of elastomer.

A primary feature of this cable system is that a cable-diameter-matching grommet is installed around the cable. The grommet is also placed inside the cable entry frame. Because of this installation practice, the cables have greater ingress protection and feature strain relief.

Types Of Cable Entry Plates

Generally, there are two main types of cable entry plates: rectangular or square plates and round plates. The standard square or rectangular cable entry plates connect cables to a cable entry system and various pieces of equipment. In the past, companies needing to install multiple cables into a single assembly would have to drill openings and use cable glands to install the cables through the holes.

Now, a standard cable entry plate makes installation much easier, without any drilling required. These plates are built with multiple cable entry points and house multiple cable diameters. You can find them in designs as small as four entries per plate and as large as 72 entries per plate. Top cable entry plates feature a double membrane design, which provides greater strain relief and superior protection.

For times when you're trying to feed cables into preexisting designs, you'll likely have to use a threaded hole. Since feeding cables into a single opening can be very difficult, the industry produced round entry cable plates to make it much easier to feed cables into a preexisting design.

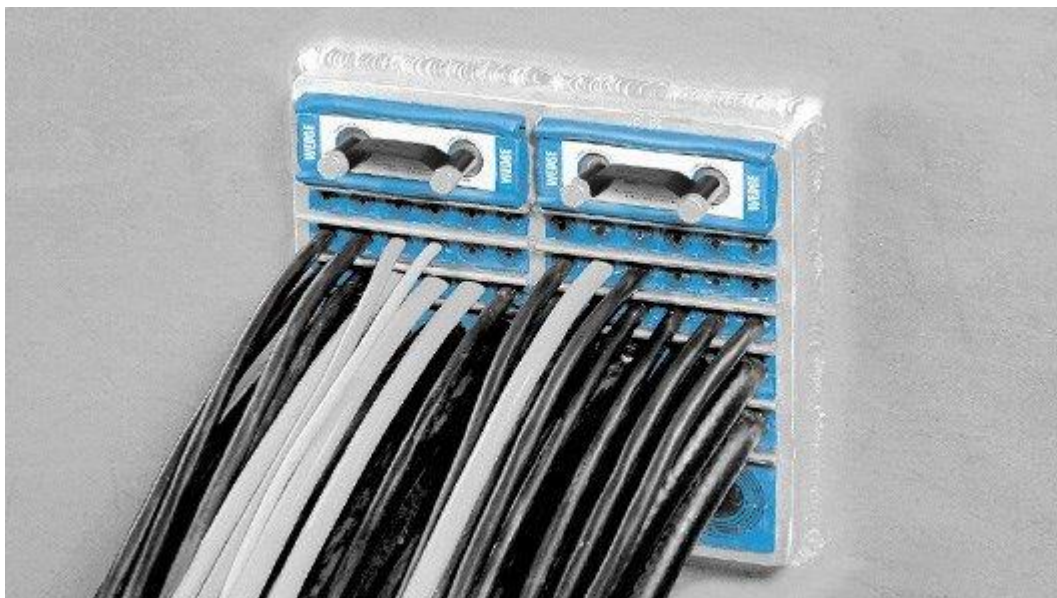
Due to the round cable entry plate's ability to be threaded into a piece of equipment or application, you can fit multiple cables into a single plate. These round cable entry plates can house several kinds of cable diameters and be outfitted with threads ranging from M20 to M63.

DDB's statement

At DDB we use Roxtec cable entry systems, when you have DDB modify and install a Roxtec cable entry system we warranty this system for 15 years just like our enclosure warranty! The Roxtec cable entry system is available for any of our enclosures.

For additional information on our cable entry systems please follow this link. <https://www.ddbunlimited.com/accessories/cable-entry-solutions/>

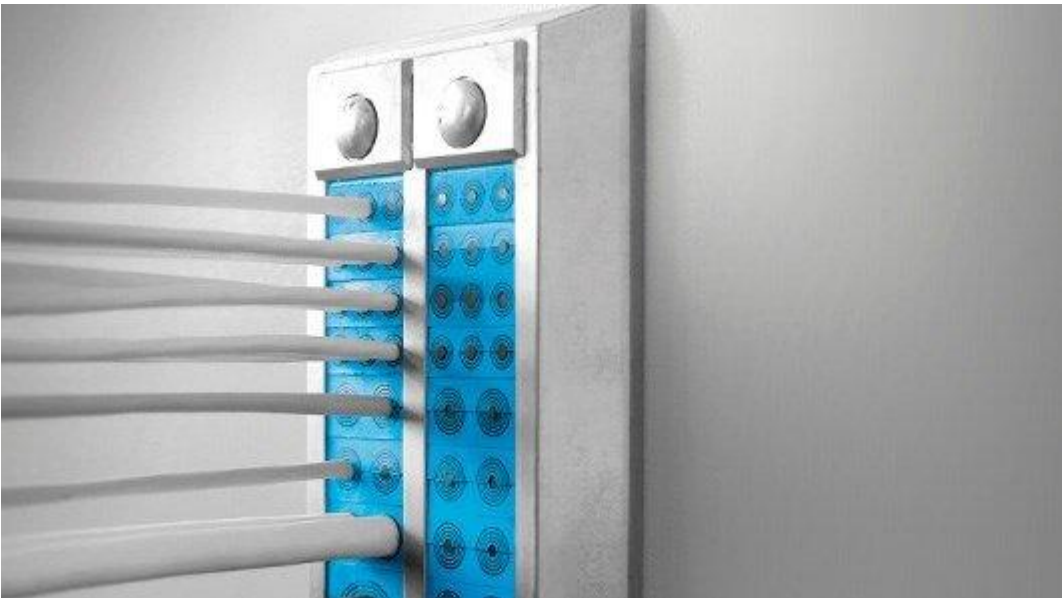
Below are pictures of just a few cable entry systems.



Multi cable/pipe transit



Single cable/ Pipe



Enclosures



Underground