12 CONSIDERATIONS WHEN INSTALLING PRE-ASSEMBLED CABLES

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Category: Fiber Optic

The demand for pre-assembled cables is increasing, and their versatility is one of the main reasons. At *Higgs* the personalization is one of our main focuses and it is possible to customize the products from the begin to the end according to your needs.

In addition to their versatility, pre-assembled cables have numerous advantages, including the fact that they are a Plug n´Play solution, there is no need to splices them onsite, they don´t need special tools and they are quick and reliable to install.

However, during the cable installation, it´s necessary to take some precautions so that it is performed in the

best way possible. With this in mind, barpa has put together a list of considerations when installing pre-assembled cables so that you can get the best results from using our cables.

1. Create a layout of the installation site

Having a layout of the installation site is a great help for planning the cable installation. It´s important to define the cable route through the cable trays and conduits so that it is placed in the best way possible until the cable's destination. Having this precaution prevents possible unforeseen events that could happen when installing the cable.

2. Unroll the cable carefully

To unroll the cable in a way that it won´t get damaged, hold the end of the cable that you want to unroll and pull gently (on the cable sheath, never on the connectors) so that the spool turns and the cable unrolls. This method prevents the cable from being twisted and does not create any kinks that could damage it and probably compromise the result.

3. Figure eight method

If it is necessary to unroll the cable completely, the safest way to do it without damaging the cable is through the figure eight method. This method prevents the cable from getting tangled while being unrolled and makes it easier and more practical to handle after unrolling the whole cable. The figure eight method consists in placing the cable on the floor in the form of number eight in layers until the end of it. To help keeping the cable in place, you can put an object in the middle of the circles.

4. Use lubricant in conduits

If the cable is going to pass through conduits, it´s important to use a fiber optic cable lubricant. The lubricant reduces the resistance of the cable while being pulled and reduces the risk of creating breakage.

The right lubricant must be chosen having in mind the cable sheath material.

5. Staggered connectors

The purpose of staggering connectors is to reduce the gap between the connectors and the cable sheath when they are connected. This reduces the possibility of the connectors being accidentally pulled and creates a more organized and aesthetically look. This process is tailor made at Higgs, following the indications and specifications of the customer.

6. Use Pulling eye IP10

The Pulling eye IP10 is made with expandable sleeve and is placed on one or both ends of the cable. The function of the pulling eye IP10 is to protect the connectors and it´s also used to pull the cable. To remove the pulling eye IP10 from the cable, you just need to cut it near the heat shrink tube and manually remove the rest of the expandable sleeve to expose the connectors. At Higgs even inside of the pulling eye IP10 the connectors are always protected with bubble wrap and we leave a margin between the connectors and the heat shrinking tube, so that when you are about to cut it there´s no accidents, like cutting a connector by mistake.

7. Pulling eye IP68

Like the pulling eye IP10, the pulling eye IP68 also protects the connectors, however, it´s function goes beyond that. The pulling eye IP68 is waterproof, making it possible to pass the cable under water without compromising the result. This is also one of the solutions that we have available at Higgs.

8. Don´t pull the cable with too much force

To make the installation it´s necessary to pull the cable, however, it´s essential to be very careful with the pulling force applied at that moment. Applying more force than necessary is enough to damage the cable and jeopardize the final performance. Ideally the cable should be pulled gently in a straight line, it is not recommended to pull the cables hanging on one side.

9. Attention to the bending radius of the cable

It´s fundamental that the bending radius of the cable is respected. Under no circumstances should there be an excessive bend in the cable. An excessive bend damages the cable and can create breakage. For example, on curves in cable trays, the cable adapts to the curve without having to force it to stay in place.

10. Use velcro to secure the cable

Use Velcro straps to secure the cable. Velcro straps are a great option as they are resistant and they don´t leave marks on the cable. The use of nylon cable ties isn´t recommended because they can mark the cable and create damage.

11. Only remove the connectors covers when connecting them

The protective cover of the connectors should only be removed when it´s time to connect them. Dirt harms the performance of the connectors and if they are unprotected and hit a surface, even if not too hard, they can break. Connectors are very sensitive, at the slightest touch they get dirty right away. Therefore, when the protections of the connectors are removed, it´s necessary to be very careful so the connectors don´t touch anything, whether your hand, clothes or any other surface.

12. Clean the connectors before connecting them

Before the connectors are inserted, it´s essential to inspected them first to ensure that they are clean. If there is dirt on them, they should be cleaned very well so you can get the best results possible.

For all of these reasons you should try and use the pre assembled fiber cables. Check here our production facilities in Youtube: