

Article

**CX4 sets the new standards in connectorization**

The demand for ease of installation and extended services like Internet, Video on demand and VoIP has changed connectorization forever.

We are all familiar with old designed connectors including poor shielding, dirt and scrap inside, blind entry, 7-8 turns of the back nut, big teeth marks, water migration and betraying IMD problems.

Cabelcon has done it. It is our obligation. Designed a connector offsetting weaknesses and adding features you are going to ask for and rely on. The name is CX4:

The CX4 is a high precision connector. The illustration shows the perfect CX4 installation. Cabelcon's recommended preparation tools and guidelines are a premise that cannot be stressed enough in order to gain full benefit from the connector.

**The activator**

The back-nut is easily placed over the stripped cable. The activator of the connector is designed to ensure that the inner conductor of the cable is positioned correctly in the centre seizing system. So, when the back nut is tightened to physical stop, the inner conductor is safely in place.

The material of the activator is a specifically designed PP composite with fibreglass. It possesses the flexibility to accept tolerances on the cable, yet still has the strength to stay stable after climatic changes from -40 to +85°C.

**The centre seizing system**

Also the COC material of the insulator in the centre seizing system is a unique Cabelcon design that guarantees a stable connection throughout the connector's lifetime. This detail is of great importance, as the IMD/CPD (Intermodulation distortion) parameter is reactive to even the slightest changes in the centre seizing system. More on this on the back page.

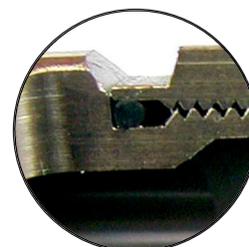
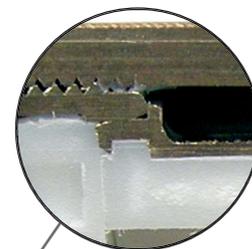
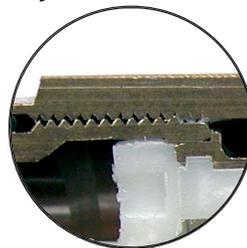
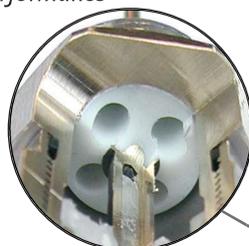
**Multithread**

Thanks to Cabelcon's multithread system the final tightening to physical stop is done with low force and the rotations necessary are reduced to one third of what is normally needed. This is a valuable detail as trunk and distribution connectors are often placed in boxes and street cabinets with limited

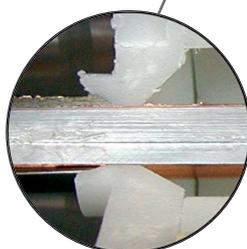
*Multithread for easy installation*

*Self locking ferrule system with 360° screen contact*

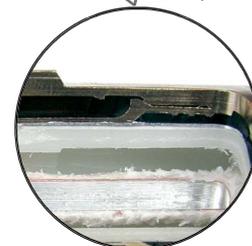
*COC composite insulator to ensure a stable mechanical performance*



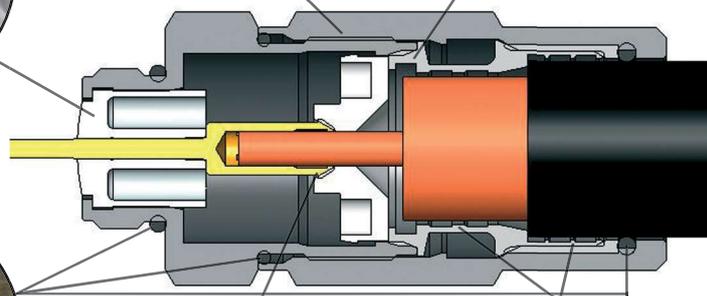
*EPDM O-rings ensure resistance against moisture intrusion*



*Activator made of special PP fibreglass*



*A Strong grip on the jacket and the outer conductor without damaging the cable*



working space.

**Self locking ferrule system**

CX4 has a patented self-locking ferrule system to prevent rotations on the cable during installation. The conical ferrule locks the cable, while the connector is tightened to physical stop.

The ferrule design also ensures a true 360° contact. The result is an excellent shielding and transfer impedance performance.

CX4 has a precise and sensitive 360° grip both on the jacket and the outer conductor of the cable. The grip exceeds the recommended pull strength by more than 50 % while avoiding potential damage to the cable. The powerful and precise grip is important for electrical performances such as transfer impedance, intermodulation and screening efficiency.

**Watertight**

When the body part is tightened, one O-ring in the back nut is activated against the jacket and another O-ring is activated between the body and the back nut. A third O-ring in the front end of the body ensures a watertight connection to the matching interface. This makes a watertight connection between all the connecting parts. The CX4 passes Cabelcon's demanding IPX 8 test: 30 meters of water/8 hours.

**Protected to last**

Moisture, dust and dirt are enemies to any connector. Therefore each connector is wrapped in airtight plastic to protect the sensitive mechanical and electrical performance all the way to the end user.

The CX4 is indeed a masterpiece. CX4 is user-friendly, secure and tested to perform with great stability for a long time under extreme climatic conditions.

## Innovations

### CX4 centre seizing system reduces the risk of InterModulation Distortion (CPD)

Every detail counts in the design of a superior connector. The right choice of metals and composites, the moulding process, the plating, the precise tolerances and accurate tools for correct cable stripping are some of many factors decisive for a successful connectorization. In order to secure the performance no design failures can be accepted.

And therefore all Cabelcon products are going through intensive tests with certified test equipment and with reliable and comparable data available for the customer.

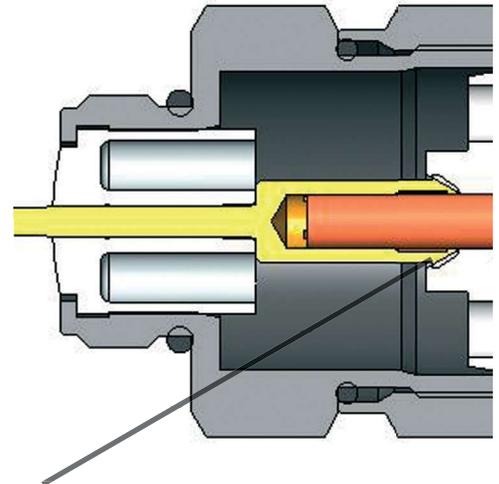
The success will show in the ease and security of installation and in stable performance throughout years of use with the lowest maintenance costs.

A Cabelcon example that illustrates this situation is the development of the CX4 centre seizing system.

Cabelcon's CX4 has a patent pending COC-insulator construction for optimised stability and performance of the insulator itself. Also the inner conductor is unique. The gripping part is a patent pending construction that improves the grip, while eliminating the risk of passive intermodulation.

The final result of this combination is a centre seizing system with stable performance even under harsh climatic conditions – tested to the extreme in Cabelcon's climatic chamber with rapid temperature cycles from -40° to +85° C.

And this is exactly a Corning Cabelcon ambition: To make connectors that perform with excellence under all climatic conditions throughout a long time of life.



*The pat. pending gripping construction ensures an exceptional pull off strength, while the flat surface eliminates the risk of scratches on the cable conductor and therefore reduces the InterModulation Distortion IMD (CPD).*