Cable Assemblies

TeleGAERTNER is equipped with modern production facilities and is thus able to manufacture cable assemblies exactly in accordance with customer specifications in the shortest of lead-times. The use of high-precision equipment for preparing cables, as well as special crimp presses, ensures an efficient and reliable assembly production. The well-trained and experienced personnel guarantee high-quality production. Furthermore, the cable assemblies are subject to a 100% voltage and electrical continuity test. Photographed assemblies, as well as assembled with individual Test Loss tests, are also available on request.

Configuring Coaxial Cable Assemblies Online

Using the TeleGAERTNER online configurator, the customer can design his individual cable assembly together with connectors online. Selection can be made from over 20 different cables and 400 connector types to create cross over individual specification sheet in the form of a PDF file, which can be downloaded. This specification sheet shows the individual part number for the cable assembly, which can then be used to order directly from us. In this way, a detailed document is produced for the customer, which includes all the necessary data, and for us at TeleGAERTNER a detailed and precise manufacturing specification, from which we can produce the assembly exactly in accordance with the customer’s wishes.

Universal Safety Crimping Presses SafeCrimp

The crimping presses - developed and produced by TeleGAERTNER - incorporate an innovative mechanical safety system, which allows the use of both hands to position the item during the crimping process. Should a foreign body, which is larger than a certain size (e.g., a finger), lie in the crimping area, the system automatically locks by means of a very reliable mechanical device. The force exerted on the foreign body is so low that injuries are impossible. The robust, pneumatically powered table-top appliance is, therefore, ideally suitable not only for crimping processes during cable assembly, but also for a multiplicity of other crimp or press processes.

Further information regarding Universal Safety Crimping Presses can be obtained from:

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Tel.+49 35055 682-0
geraetebau@telegaertner.com
www.geraetebau.telegaertner.com

Coax

Coaxial Cables

in bulk or as cable assembly
In the cable chart opposite, you will find a multiplicity of technical parameters which should simplify criteria for selecting suitable coaxial cables.

To complement its extensive range of coaxial connectors, Telegartner is also a major producer of coaxial cables. You will find coaxial cables in our product range which will ideally suit your applications and demanding high-quality PPC cables, low-loss PPC cables, low-loss cables, as well as a comprehensive semi-rigid cable with high screen effectiveness.

Criteria for selecting suitable coaxial cables

In the chart opposite, you will find a multiplicity of technical parameters which should simplify the selection of the right cable for your application.

Impedance 50 Ohm or 75 Ohm

For video and broadcast transmission, 75 Ohm technology is used. The impedance is 50 Ohm technology in used.

Insertion Loss (Attenuation)

Insertion loss is the ratio of input power to output power; it is an expression of the total electrical losses in a cable run. These losses are mainly dependant on the cable diameter, the dielectric constant of the insulation, and the ambient temperature. Cables with PE or PVC sheaths can be used up to approx. +80 °C.

Screen effectiveness

The screen effectiveness is an expression of how well a cable prevents electrical energy escaping from or entering into the transmission line. To improve the screen effectiveness of cables, double braid, foil and braid, and tinned braid screens can be used. Double braid will give a higher screen effectiveness.

Insertion Loss (Attenuation)

Insertion Loss (Attenuation) dB

<table>
<thead>
<tr>
<th>Type</th>
<th>Order no.</th>
<th>Rackable unit</th>
<th>Cable Group</th>
<th>Ø (mm)</th>
<th>Material</th>
<th>Centre Conductor</th>
<th>Dielectric</th>
<th>Outer Conductor</th>
<th>Cable Sheath</th>
<th>Attenuation 0.5 GHz</th>
<th>Power 2 GHz</th>
<th>Screen Effectiveness (%)</th>
<th>Velocity of Propagation (%)</th>
<th>Temperature Range °C</th>
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<tr>
<td>RG-176</td>
<td>L01030001 50 G2 0,93 stranded CuS 6,67 PTFE single Cu 6,15 PTFE brown</td>
<td>100</td>
<td>239</td>
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<td></td>
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<tr>
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<td></td>
<td></td>
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<tr>
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<td>L01020001 100 G1 0,93 stranded CuS 17,56 PTFE single Cu 6,15 PTFE brown</td>
<td>G2</td>
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<td>L01010001 100 G1 0,93 stranded CuS 17,56 PTFE single Cu 6,15 PTFE brown</td>
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<td>209</td>
<td>209</td>
<td>+60</td>
<td>70</td>
<td>55 - 205</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RG cables

Low loss cables

Conformable semi-rigid cables

50 and 75 Ohm types

Single braid

Double braid

Low loss

Semi Flex
In the cable chart opposite, you will find a multiplicity of technical parameters which should simplify criteria for selecting suitable coaxial cables.

Criteria for selecting suitable coaxial cables

In the table chart opposite, you will find a multiplicity of technical parameters which should simplify criteria for selecting suitable coaxial cables.

- **Impedance 50 Ohm or 75 Ohm**
  - For video and broadcast transmissions, 75 Ohm technology applies. For almost all other systems, 50 Ohm technology is used.

- **Screen effectiveness**
  - Depending on the materials used in the manufacture of cables, they are suitable for operating in differing ambient temperatures. Cables with PE or PVC sheaths can be used up to approx +80°C. Cables with PTFE sheaths are suitable for the transmission line. To improve the screen effectiveness of cables, double braids and tinned braid may be used. Cables with high screen effectiveness should be used in applications with high ambient temperatures or where the application requires a high degree of flexibility.

- **Impedance**
  - Impedance is the ratio of input power to output power; it is an expression of the total electrical opposition that the transmission line presents to the signal being transmitted. For different systems, the required impedances differ. 50 Ohm technology is used for almost all other systems.

- **Temperature**
  - Temperature range which will ideally suit your applications and demands; high-quality PTFE cables, low loss cables, as well as conformable semi-rigid cables, with high screen effectiveness.

### Product Chart: Bulk Coaxial Cable

#### 50 – 66

<table>
<thead>
<tr>
<th>Type</th>
<th>Order no.</th>
<th>Packing unit</th>
<th>Cable length (m)</th>
<th>Δd (mm)</th>
<th>Material</th>
<th>Nom. Screen</th>
<th>Attenuation (ΔΔ)</th>
<th>Power (W)</th>
<th>Screen Effective- ness (dB)</th>
<th>Voltage of Propagation (% of Velocity)</th>
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</thead>
<tbody>
<tr>
<td>RG-176</td>
<td>L010040B0010</td>
<td>50</td>
<td>60</td>
<td>1.30 stranded Cu</td>
<td>Cu/PE</td>
<td>TPE</td>
<td>single Cu</td>
<td>0.65</td>
<td>100</td>
<td>&gt;50 (100-900 MHz)</td>
</tr>
<tr>
<td>RG-176</td>
<td>L010040E0010</td>
<td>50</td>
<td>60</td>
<td>1.30 stranded Cu</td>
<td>Cu/PE</td>
<td>TPE</td>
<td>single Cu</td>
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<td>single Cu</td>
<td>0.65</td>
<td>100</td>
<td>&gt;50 (100-900 MHz)</td>
</tr>
</tbody>
</table>

### RG cables

- **Standard length coils**
- **Conformable semi-rigid cables**
- **50 and 75 Ohm types**
- **Suitable for terminating with Telegärtner coaxial connectors**

### Low loss cables

- **Low loss cables**
- **Available ex stock**
- **RG cables**
- **Standard length coils**
- **Conformable semi-rigid cables**
- **Special lengths (on request)**

### Criteria for selecting suitable coaxial cables

In the cable chart opposite, you will find a multiplicity of technical parameters which should simplify criteria for selecting suitable coaxial cables.
Universal Safety Crimping Presses SafeCrimp

The crimping presses - developed and produced by Telegärtner - incorporate an innovative mechanical safety system, which allows the use of both hands to position the item being worked during the crimping process. Should a foreign body, which is larger than a certain size (e.g. a finger), lie in the crimping area, the system automatically locks by means of a very reliable mechanical device. The force exerted on the foreign body is so low that injuries are impossible. The robust, pneumatically powered table-top appliance is, therefore, ideally suitable not only for crimping processes during cable assembly, but also for a multiplicity of other crimp or press processes.

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Customised cable assembly manufacture
- Short lead-time
- State-of-the-art production equipment and tooling
- Connectors and cable available ex stock
- Individual data-sheets as PDF file

www.telegaertner.com/coaxconfig/en

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Can be fitted with well-known and well-tried crimp and press attachments
- patented, mechanical safety system
- crimp process triggered by foot-pedal - both hands are free to position the pieces
- inexpensive due to the fact that additional safety devices and costly sensor technology is not necessary
- high press forces possible. According to model up to 10, 15, 25 and 40 kN

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Telegärtner GmbH
Karl-Gärtner-Straße 35
D-71144 Steinenbronn
Tel.: +49 (0) 7157/1 25 -200
Fax: +49 (0) 7157/1 25 -120
E-Mail: info@telegaertner.com
Web: www.telegaertner.com

Coax

12/2012

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