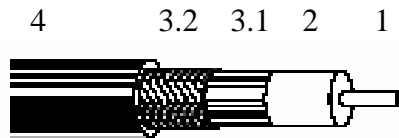


## Application

Transmission cable is used for low and high power radio frequency (RF) connections. Examples include radio antenna tower connections, CB and cellular phone antenna connections and microwave transmitter and receiver applications.

## Construction & Dimensions



1. Conductor
2. Dielectric
- 3.1 Foil
- 3.2 Braid
4. Jacket

1. **Inner Conductor** Innenleiter - Conduttore Interno - Conducteur - Conductor - Проводник  
Material: solid, bare copper  
Diameter: 2.5 mm
2. **Dielectric** Dielektrikum - Dielettrico - Diélectrique - Dieléctrico - Диэлектрик  
Material: Gas injected PE  
Diameter over insulation: 7.00 mm
3. **Outer Conductor** Aussenleiter - Conduttore Esterno - Conducteur extérieur - Conductor externo - Внешний проводник  
Material: foil + braid  
Diameter screen: 7.45 mm
  - 3.1 Shielding foil: Cu foil  
Coverage: 100%
  - 3.2 Shielding braid: bare copper braid  
Coverage: 50% ± 5%
4. **Jacket** Aussenmantel - Guaina - Gaine - Revestimiento - Оболочка  
Material: PE  
Diameter: 9.80 ± 0.2 mm  
Color and text: see table Marking

## Requirements and test methods

### Electrical characteristics

Mean characteristic impedance: 50 ± 3 Ω

Wellenwiderstand - Impedenza Caratteristica Principale - Impédance nominale - Características eléctricas - Электрические характеристики

Nominal capacitance conductor to shield: 82 pF/m

Kapazitaet - Capacità Nominale Conduttore/Schermo - Capacité nominale entre conducteur et blindage - Capacitancia nominal de conductor a blindaje - Номинальная емкость "проводник-экран"

Nominal velocity of propagation: 81%

Ausbreitungsgeschwindigkeit - Velocità Nominale di Propagazione - Vitesse de propagation nominale - Velocidad nominal de propagación - Номинальная скорость распространения сигнала

**Product Datasheet**  
**H500C00**  
**50 Ohm Transmission**

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**Max. DC loop resistance:** 15.3  $\Omega$ /km  
Schleifenwiderstand – Resistenza continua di Loop – Resistenza (DC) di Loop - Resistencia de bucle CC - Сопротивление петли пост. Тока

**Max. inner conductor DC resistance @ 20 °C:** 3.8  $\Omega$ /km  
Gleichstromwiderstand Innenleiter - Resistenza Nominale DC del Conduttore Interno - Résistance du conducteur intérieur - Resistencia CC nominal del conductor interno - Номин. сопротивление пост. тока внутреннего проводника при

**Max. outer conductor DC resistance @ 20 °C:** 11.5  $\Omega$ /km  
Gleichstromwiderstand Aussenleiter - Resistenza Nominale DC del Conduttore Esterno - Résistance du conducteur extérieur - Resistencia CC nominal del conductor externo - Номин. сопротивление пост. тока внутреннего проводника при

**Return loss at**

5- 470 MHz:	$\geq 23$ dB*
470-1000 MHz:	$\geq 20$ dB*
1000-2000 MHz:	$\geq 18$ dB*
2000-3000 MHz:	$\geq 16$ dB*

Rueckflussdaempfung - Perdite Cumulative di Riflessione - Taux de réflexion du signal - Pérdida de retorno - Обратные потери на

**Screening attenuation at 30-1000 MHz:**  $\geq 95$  dB  
Schirmungsmass – Attenuazione dello Schermo- L'affaiblissement lié au blindage - Eficacia de blindaje - Эффективность экранирования

**Nominal Attenuation:** Wellendaempfung - Attenuazione Nominale – Affaiblissement - Atenuación nominal - Номинальное затухание

MHz	dB/100m	MHz	dB/100m
5	0.9	862	13.4
50	2.9	1000	14.6
100	4.1	1350	17.4
230	6.5	1750	20.3
400	8.7	2150	23.0
800	12.9	2400	24.6



**Mechanical and physical characteristics**

Temperature range - storage/operation -40°C to +70°C

Temperature range - installation -5 °C to + 70°C

Minimum bending radius 10x  $\varnothing$  cable

Biegeradius - Raggio Minimo di Curvatura - Rayon de courbure minimum - Radio de curvatura mínimo - Минимальный радиус изгиба

**Nominal cable weight** 107 kg/km

Gewicht - Peso Nominal del Cavo – Poids - Peso nominal del cable - Номинальный вес кабеля

**Ordering information**

**MARKING**

Jacket colour	Text
Black	BELDEN-NL H500C00 2.50/7.00 PE 13

Meter marking: yes, MM-YY: month and year of manufacturing

**PACKAGING (PUT-UP)**

C100m, 250m, 500m and 2000m

Each reel is labelled with the following data:

Belden Logo, Belden code number, item description, length on the reel and date of manufacturing.

\* max. 3 peak values 4 dB lower than specified