



## TECHNICAL DATA SHEET

449945 Composite

code **449945**  
version **1**  
date **2005-08-22**  
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### APPLICATION

CCTV plus Audio, Pan and Tilt CCTV Control.

### SUITABILITY

Indoor, Outdoor, Aerial



### CONSTRUCTION

#### 1. COAX 59/U

##### 1.1. Conductor

nominal conductor diameter	0.813 mm (AWG20)
Material	solid bare copper

##### 1.2. Dielectric

Material	Foamed PE
Nominal diameter over dielectric	3.68mm

##### 1.3. Shield

Type	Braid
Material	Bare – Cu
Coverage	95%

#### 2. TWISTED PAIR

##### 2.1. Conductor

Nominal conductor diameter	1.17 mm (AWG18)
Material	stranded bare copper (7xAWG26)

##### 2.2. Insulation

Material	PE
Diameter over insulation	$1.70 \pm 0.05$ mm
Nominal wallthickness	0.25 mm
Colour of insulation	black and red

#### 3. Sheath

Material	FRNC
Colour	Grey
Nominal thickness of sheath	0.38 mm
Nominal diameter over sheath	5.9 x 11.7 mm

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page **2/2****ELECTRICAL REQUIREMENTS AND TEST METHODS****COAX**

Nom. characteristic impedance	75 $\Omega$
Nominal resistance conductor	32.81 $\Omega$ /km
Nominal resistance shield	11.484 $\Omega$ /km
Nom. capacitance cond. to shield	54.3 pF/m
Nominal delay	4.1 ns/m
Nominal velocity of propagation	83 %
Testvoltage conductor-conductor	2500 VDC, 3 seconds
Testvoltage conductor-screen	2500 VDC, 3 seconds
Voltage rating	300 V RMS

Freq. (MHz)	1	5	10	50	100	200	400	700	900	1000
Nom. Att. (dB/100 m)	0.98	2.13	2.95	6.23	8.53	11.8	16.4	23.0	26.2	27.9

**TWISTED PAIR**

Nominal resistance conductor	21.3 $\Omega$ /km
Nom. capacitance conductor to conductor @ 1kHz	98.4 pF/m
Testvoltage conductor-conductor	2500 VDC, 3 seconds
Voltage rating	300 V RMS

**Mechanical and physical:**

Temperature range processing and operating	-30 to +70 °C
Temperature range storage	-30 to +70 °C
Minimum bending/setting radius	5*D/10*D
Maximum pulling tension	450N
Halogen free according to	IEC 60754-1
Non dense smoke according to	IEC 61034-1 and 61034-2
Non corrosive gas according to	IEC 60754-2
Flame Retardant according to	IEC 60332-1

**MARKING**NEW GENERATION(R) BY BELDEN 449945 HALOGEN FREE 2C18 1C20 70C  
+sequential length marking