

**Description**

50 Ohm Coaxial cable  
low loss for wireless communication systems



Data Sheet

**WL400N**



Ø	2,70 (Cu)	7,20 (PEG/PE)	7,37 (Al/Pet/Al/Sur)	7,97 (CuSn)	10,30 (PVC)
---	--------------	------------------	-------------------------	----------------	----------------

**Construction data**

Inner conductor of plain copper	(Cu)	Ø 2,70 ± 0,10	mm
Dielectric of physical foam polyethylene + outer PE skin	(PEG/PE)	Ø 7,20 ± 0,15	mm
Aluminum/Polyester/Aluminum/Surlyne tape longitudinally overlapped and bonded to the dielectric	(Al/Pet/Al/Sur)		
Braid of tinned copper wires	(CuSn)		
Braid optical coverage (IEC 96-1)		82	%
Diameter over Braid		Ø 7,97	mm
Outer sheath of Polyvinylchloride - black - lead-free	(PVC)	Ø 10,30 ± 0,20	mm

Printed each meter by yellow ink-jet :

**CAVEL WL 400 N 50 Ohm LOW LOSS WI-FI/RF - MADE IN ITALY - gggaaan - m**

(ggg=day)(aa=year)(n=batch) (m=meter marking)

**Physical data**

Weight of copper conductors	80,18	kg/km
Total weight of cable	147,50	kg/km
Minimum bending radius	100	mm
Maximum cable pulling strength	720	N
Minimum installation temperature	-5	°C
Operating temperature	-25 / +80	°C

**Electrical data**

Characteristic impedance	50 ± 2	Ohm
Capacitance	78	pF/m
Velocity Ratio	86 %	
Inner conductor resistance	3,40	Ohm/km
Outer conductor resistance	5,40	Ohm/km
Loop resistance	8,80	Ohm/km
Sheat Insulation voltage (spark test)	8	kV
Maximum current (I <sub>eff</sub> )	25	A
Structural return loss (SRL)	Max. power	
5 - 470 MHz	>30 dB	30 MHz 3.360 W
470 - 1000 MHz	>28 dB	50 MHz 2.590 W
1000 - 2000 MHz	>26 dB	150 MHz 1.470 W
2000 - 3000 MHz	>22 dB	220 MHz 1.200 W

**ITALIANA CONDUTTORI s.r.l.**

Viale Zanotti 90 I - 27027 Gropello Cairoli  
Tel +39-382.815150 Fax +39-0382.814212

Date

19/05/2017

Responsible

Alberto Scardovi

**Description**

50 Ohm Coaxial cable

low loss for wireless communication systems

Coaxial Cables

**CAVEL**<sup>®</sup>

since 1968

Data Sheet

**WL400N**

Screening Attenuation (SA)

&gt;90 dB

## Attenuation (at 20°C )

Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]
50	2,60	1500	16,60
150	4,60	1800	18,20
220	5,70	2000	19,30
450	8,70	2500	22,00
900	12,50	5800	29,40

**ITALIANA CONDUTTORI s.r.l.**

Viale Zanotti 90 I - 27027 Gropello Cairoli

Tel +39-382.815150 Fax +39-0382.814212

Date

**19/05/2017**

Responsible

**Alberto Scardovi**