

**LP-CECNOBKC LanPro Reliable® CAT 5e SF/UTP Outdoor Network Cable, with 4 pairs of AWG 24 solid 100% copper conductors with an overall layer of Aluminum Foil shield and with an Aluminum-Magnesium braid of 60% coverage wound on top of it. It also includes a drain wire and a Single Black PE Jacket with ripcord in a 1000 ft (305m) wood spool.**

LPCECNOBKC\_SS\_ENB01W

### Characteristics

- Exceeds all standards for CAT 5e communications cable.
- Outdoor installation.
- Can be buried.
- Extremely durable.
- Black PE Jacket.
- UV resistant.
- Double Shielded with aluminum foil and an overall 60% coverage Aluminum-Magnesium braid on top of it for noisy environments.
- With a 0.45 mm Dia. Tinned 100% copper drain wire.
- Characterized to 100 MHz.
- Operation voltaje  $\leq 48$  Volt RMS.

### Applications

- Outdoor cable runs to wireless Access Points (AP), Bridges or CPE.
- Outdoor cable runs to IP Video Surveillance Cameras.
- Highly shielded for better performance on noisy environments.
- Used in Building to Building Networks.
- Ethernet, Phone, Paging, Alarm, Video and Power-over-Ethernet (PoE) Networks.
- The perfect Cat 5e cable for outdoor residential and commercial installations.
- Situations where reliability is of paramount importance, as in military complexes, hospitals, extreme weather locations, airports.



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LanPro manufactures high performance CAT 5e cables for outdoor usage. The external jacket is made of Polyethylene (PE) with a high resistance to external agents like humidity, UV radiation and high temperatures resulting in a long lasting operation. The external jacket offers also positive protection to corrosion, erosion and friction.

This cable is constructed with a 4 UTP basis of AWG 24 100% Copper conductors and is shielded with an overall layer of Aluminum Foil shield and with an Aluminum-Magnesium braid of 60% coverage wound on top of it, yielding an SF/UTP structure. With a 100% copper and tinned drain wire in contact with the shield all over the length of the cable, results in the reduction of electromagnetic interference found in noisy environments. All of these features make this cable highly recommended for outdoor connection to outdoor radios and wireless equipment in noisy environments.

Outdoor CAT 5e cables from LanPro are approved as per the ISO/IEC11801 standard and following the TIA/EIA 568-C.2 specifications for Category 5e cables.

Used for Gigabit Ethernet, 1000BASE-Tx, token-ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, (broadband, analog baseband), digital video and voice over IP (VoIP), it can also be used for IP video surveillance cameras.

**Warning:** the use of traditional indoor grade Category 5e cable in outdoor applications subjects it to rapid deterioration. Installation of indoor CAT 5e cable inside a conduit does not make it outdoor suitable either. Conduits filled with water will deteriorate the cable rapidly.

Therefore, choosing a high quality outdoor (UV-rated) CAT 5e cable with PE jacket and HDPE conductor insulation is extremely important. LanPro outdoor cables will avoid costly network outages, keeping network reliability high and maintenance costs low.

If the cable is not well made or UV-rated, it may snag when coming out of the box, causing an installation breakdown or failure in sunlight over time. Wi-Fi towers and their installations **MUST** use this kind of product to avoid fast deterioration of the cabling set-up due to weather, dust, sun and rude environment.

LanPro has taken each aspect into consideration when designing this product, from its storage, installation, operation and its maintenance in order to deliver a cost effective solution to our customers. Now, with the optional PE **Rattenweg™** jacket, you will avoid rodent damage.

## A Especifications

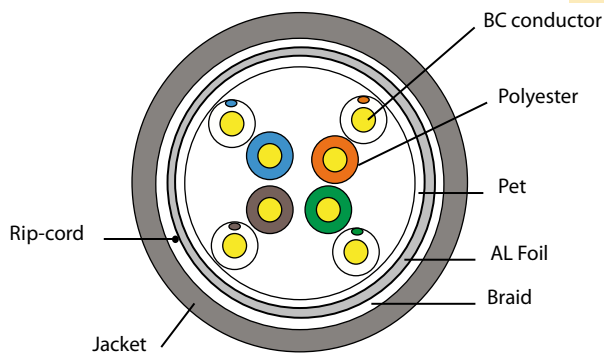
Standards	ISO/IEC11801, TIA/EIA 568-C.2			
1.-Conductor	Material	Copper 100%		
	AWG #	24		
	Nominal Diameter (mm)	0.50	Positive tolerance	+0.005
			Negative tolerance	-0.005
2.-Isolation layer	Material	HDPE (High Density Polyethylene)		
	Diameter (mm)	1.00±0.03		
	Elongation	Min. 300%		
	Color	A-Blue, White-Blue	B-Orange, White-Orange	
		C-Green, White-Green	D-Brown, White-Brown	
3.-Wrapping	PET			
4.-Rip Cord	Yes			
5.-Shielding	SF/UTP	60% coverage Aluminum-Magnesium 16/7/0.10 braid over Aluminum Foil		
6.-Drain Wire	yes	0.45mm, Copper 100%, Tinned		
7.-Jacket	Thickness	0.60±0.05 mm		
	External Diameter, (O.D.)	6.8±0.5 mm		
	Surface finish	Clean, Satinized		
	Material	LDPE, RoHS, optional rodent <b>Rattenweg™</b> treatment		
	Color	Black		
8.-Jacket Physical Properties	Tensile Strength Before aging	> 10.0 Mpa		
	Elongation Before Aging	> 300%		
	Aging Period(°CxHours)	100°Cx24x10d		
	Elongation After aging	> 300 %		
	Cold Bend(-20+2°Cx4h)	8xCable O.D. No visible cracks		
9.-Markings	Type height	3.0±0.3 mm		
	Color	Blanco		
10.-Packaging	Wood Spool			
	Product length	305 + 0.5 m		
11.-Temperature	Temperature Range	-20°C to 75°C		

13.-Electrical properties @ 20°C	Isolation resistance @500 V	Min 5000 MOhm/Km
	Zo (1.0 – 100.0 MHz)	100 ±15 Ohm
	Propagation Velocity (% C)	68%
	Delay Skew	±45(ns/100m)
	Maximum DC Resistance @ (20 oC)	9.5 Ohm/100 m
	Delay [ns/100m] @100 MHz	538 ns
	% Resistance unbalance between conductors(Max)	5 %
	Unbalanced-to-ground capacitance (pF/100m) max	330
	Maximum Operating RMS AC Voltage	±48
	Peak Operating Voltage (DC)	±68
	(DC) Test Voltage (1minute)	1.0 KV/ 1 minute

**B Certification Characteristics**

Frequency (MHz)	ATT ≥(dB/100m)	NEXT ≤(dB)	PSNEXT ≥(dB)	ELFEXT ≥(dB)	PSELFEXT ≥(dB)	Delay ≤ns	RL ≥(dB)	SRL (dB)	ACR (dB)	PSACR (dB)
1	2.0	65.3	62.3	63.8	60.8	570.00	20.0	25.0	63.3	60.3
4	4.1	56.3	53.3	51.8	48.8	552.00	23.0	25.0	52.2	49.2
8	5.8	51.8	48.8	45.7	42.7	546.73	24.5	25.0	46.0	43.0
10	6.5	50.3	47.3	43.8	40.8	545.38	25.0	25.0	43.8	40.8
16	8.2	47.2	44.2	39.7	36.7	543.00	25.0	25.0	39.0	36.0
20	9.3	45.8	42.8	37.8	34.8	542.05	25.0	25.0	36.5	33.5
25	10.4	44.3	41.3	35.8	32.8	541.20	24.3	24.3	33.9	30.9
31.25	11.7	42.9	39.9	33.9	30.9	540.44	23.6	23.6	31.2	28.2
62.5	17.0	38.4	35.4	29.7	24.9	538.55	21.5	21.5	21.4	18.4
100	22.0	35.3	32.3	23.8	20.8	537.60	20.1	20.1	13.3	10.3

**C Cable Structure**



**Typical Markings:**

LP-CECN0BKC WWW.LANPRO.COM CAT5E SF/UTP PE JACKET ANSI/TIA 568-C.2 4P 100% COPPER AWG24 75°C 48 V COMMUNICATIONS CABLE XXXM YYMMDDX

**D How to Order**

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LanPro is continuously improving its products and reserves the right to change specifications and availability without prior notice.