

Berk-Tek LANmark-B536 Cat 5e Solid 2-Pr Shielded TPE

Berk-Tek LANmark Industrial Medium-Duty Ethernet Cables enable the expansion and integration of Ethernet into the Industrial environment. With over 50 years of manufacturing expertise, you can be sure these Industrial Cables will perform both mechanically and electrically. With its 600V AWM design, durable TPE jacket, cold-bend performance, and resistance to oil, weld spatter, and sunlight, this cable is suitable for demanding static industrial applications. This product has both a foil shield and a braid to protect against low- and high-frequency noise on the factory floor. It is also suitable for cable tray installations.

DESCRIPTION

Construction

24 AWG solid tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by polypropylene tape, an aluminum/polyester tape shield and 38 AWG braid with 80% optical coverage and TPE jacket.

Related Standards

Low Voltage - EU Directive 2014/35/EU, CE Approved

RoHS - EU Directive 2011/65/EU

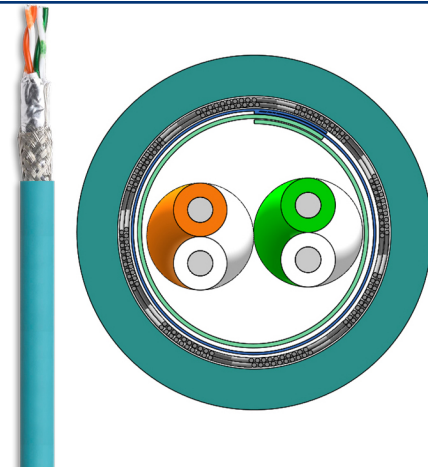
PoE+ - Type 2 (802.3at)

Agency Ratings

Description	Method	
Listed Type	UL1685	CM
Listed Type	UL444	CMX Outdoor
Oil Resistance	UL1277 11.2	II (75°C)
Sunlight Resistance	UL444 7.22	Yes (720 hrs)

Attributes

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.04 inch	TIA 568-C.0	25 lbs.
Abrasion	UL2556 7.10	75 cycles/1.5 lb. load



STANDARDS

International ISO/IEC 11801

National ANSI/TIA-568.2-D;
UL 444

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CHARACTERISTICS

Construction characteristics

Conductor material	24 AWG Solid Tinner Copper
Insulation	HDPE
Jacket Material	TPE
Braid	Tinned copper - 80% optical coverage
Shielding	Aluminum/Polyester
Core Tape	Foamed polypropylene

Dimensional characteristics

Insulated conductor diameter (Nominal)	0.046 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.27 in
Nominal cable weight	37 lb/kft
Length per reel	1000.0 ft

Electrical characteristics

Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity of propagation	68 %
Maximum pair to ground unbalance	330 pF/100m



Transmission characteristics



Skew (max.)	45 ns/100m
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Usage characteristics

Minimum Bending Radius - Install	2.16 in
Recommended installation temperature range	-20 .. 80 °C
Recommended operating temperature range	-40 .. 80 °C
Recommended storage temperature range	-40 .. 80 °C
Maximum cable length	100 m
Cold Bend	-40 °C
Weld spatter resistance	Yes

PRODUCT LIST

Part Number	Description	Packaging	Colour
 11082682	LANmark-B536 Cat 5e Solid 2-Pr Shielded TPE	Reel	Teal
 11102350	LANmark-B536 Cat 5e Solid 2-Pr Shielded TPE	Reel	Black

 = Make to order,  = In stock

LANMARK-B536 - TECHNICAL INFORMATION

Electrical Characteristics		
Parameter	Frequency	Equation
RL (dB)	1-10 MHz	$20+5*\text{Log}(F)$
	10-20 MHz	25
	20-100 MHz	$25-7*\text{Log}(F/20)$
Insertion Loss (dB/100m)	1-100 MHz	$(1.967*\sqrt{F}+0.023*F+0.050/\sqrt{F})$
NEXT (dB)	1-100 MHz	$35.3-15*\text{Log}(F/100)$
PS-NEXT (dB)	1-100 MHz	$32.3-15*\text{Log}(F/100)$
ACR (dB/100m)	1-100 MHz	NEXT - Insertion Loss
PS-ACR	1-100 MHz	PS-NEXT - Insertion Loss
ACRF (dB)	1-100 MHz	$23.8-20*\text{Log}(F/100)$
PSACRF (dB)	1-100 MHz	$20.8-20*\text{Log}(F/100)$
Propagation Delay	1-100 MHz	$534+(36/\sqrt{F})$
Max Transfer Impedance (mΩm)	1; 10; 30; 100 MHz	50; 100; 200; 1000
Min Coupling Attenuation (dB/100m)	30-100 MHz	55
Transmission Characteristics		
Description		
ISO/IEC 11801		Category 5
ANSI/TIA-568.2-D		Category 5e
Coupling Attenuation	IEC 61156-5	Type I
Transfer Impedance	IEC 61156-5	Grade 2
Color Code		
Pair-1	White/Orange	Orange
Pair-2	White/Green	Green