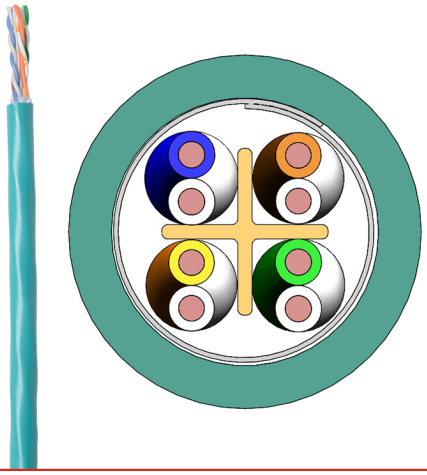
LANmark-A689 Cat 6 Solid CMR-CMX Outdoor PVC

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Contact
Berk-Tek Industrial Inquiry
Phone: 717-354-6200
industrial.support@leviton.com



Part Number: 11099212

Berk-Tek LANmark Industrial Light-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, industrial PVC jacket, cold-bend performance, and resistance to sunlight and oil, this cable is suitable for light to medium duty, static, industrial applications. This Cat 6 compliant product offers best-in-class electrical performance including PSACR nearly 3 times better than the TIA specification and characterization up to 500 MHz, 300 MHz greater than the standard. It is rated CMR and CMX Outdoor, so it easily transitions from indoor to outdoor environments. It is also suitable for cable tray installations.

DESCRIPTION

Construction

23 AWG solid bare copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair, Four such pairs and a cross filler form the basic unit, enclosed by polypropylene tape contained within an industrial PVC jacket.

Related Standards

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

RoHS - EU Directive 2011/65/EU

PoE+ - Type 2 (802.3at)

Ratings		
Description	**Method**	
Listed Type	UL1666	CMR
Listed Type	UL444	CMX Outdoor
Oil Resistance	UL 1581 50.182	60°C
Sunlight Resistance	UL444 7.22	Yes (720 hrs)

Attributes		
Description	**Method**	
AWM Style	UL758	21695 (600V, 80°C)
Cold Bend	UL444 7.10	-40°C
Weld Spatter Resistance	Internal	Yes
Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.
Abrasion	UL2556 7.10	75 cycles/1.5 lb. load

EtherNet/IP™ ODVA Compliant

STANDARDS

International ISO/IEC 11801; ODVA EtherNet/IP Compliant

National ANSI/TIA-568.2-D; UL 444

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

Nexans

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CHARACTERISTICS

Construction characteristics	
Conductor material	23 AWG Solid Bare Copper
Filler	PVC filler
Insulation	HDPE
Jacket Material	PVC
Core Tape	Foamed polypropylene
Colour	Teal
Dimensional characteristics	
Insulated conductor diameter (Nominal)	0.039 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.265 in
Nominal cable weight	30 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	67 %
Maximum pair to ground unbalance	330 pF/100m
Transmission characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Mechanical characteristics	
Maximum installation tension	25 lb
Usage characteristics	
Packaging	Reel
Minimum Bending Radius - Install	2.58 in
Recommended installation temperature range	-20 .. 80 °C
Recommended operating temperature range	-40 .. 80 °C
Recommended storage temperature range	-40 .. 80 °C

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LANMARK-A689 - TECHNICAL INFORMATION

Electrical Characteristics

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

	RL (dB)	NEXT (dB)	PSNEXT (dB)	ACRF (dB)	LCL/TCL
FQ	TIA / PG	TIA / PG	TIA / PG	TIA / PG	PG
1	20.00 / 20.00	74.30 / 79.30	72.30 / 77.30	67.80 / 72.80	50.00
4	23.00 / 23.60	65.30 / 70.30	63.30 / 68.30	55.80 / 60.70	44.00
10	25.00 / 26.00	59.30 / 64.30	57.30 / 62.30	47.80 / 52.80	40.00
16	25.00 / 26.00	56.20 / 61.30	54.20 / 59.30	43.70 / 48.70	38.00
20	25.00 / 26.00	54.80 / 59.80	41.80 / 57.80	41.80 / 46.80	37.00
31.25	23.60 / 25.00	51.90 / 56.90	49.90 / 54.90	37.90 / 42.90	35.10
62.5	21.50 / 23.50	47.40 / 52.40	45.40 / 50.40	31.90 / 36.80	32.00
100	20.10 / 22.50	44.30 / 49.30	42.30 / 47.30	27.80 / 32.80	30.00
150	18.90 / 21.60	41.70 / 46.70	39.70 / 44.70	24.30 / 29.30	28.20
200	18.00 / 21.00	39.80 / 44.80	37.80 / 42.80	21.80 / 26.70	27.00
250	17.30 / 20.50	38.30 / 43.30	36.30 / 41.30	19.80 / 24.80	26.00
300	— / 20.10	— / 42.10	— / 40.10	— / 23.30	25.20
350	— / 19.80	— / 41.20	— / 39.20	— / 21.90	24.60
400	— / 19.50*	— / 40.30*	— / 38.30*	— / 20.70*	24.00*
450	— / 19.20*	— / 39.50*	— / 37.50*	— / 19.70*	23.50*
500	— / 19.00*	— / 38.80*	— / 36.80*	— / 18.80*	23.00*

	IL (dB/100 m)	ACR (dB/100 m)	PSACR (dB/100 m)	PSACRF (dB/100 m)	EL TCTL
FQ	TIA / PG	TIA / PG	TIA / PG	TIA / PG	PG
1	2.00 / 2.00	72.20 / 77.30	70.30 / 75.30	64.80 / 69.80	35.00
4	3.80 / 3.80	61.50 / 66.60	59.50 / 64.50	52.80 / 57.70	23.00
10	6.00 / 5.90	53.40 / 58.40	51.30 / 56.40	44.80 / 49.80	15.00
16	7.60 / 7.50	48.80 / 53.80	46.70 / 51.70	40.70 / 45.70	10.90
20	8.50 / 8.40	46.40 / 51.40	44.30 / 49.40	38.80 / 43.80	9.00
31.25	10.70 / 10.60	41.40 / 46.40	39.20 / 44.30	37.90 / 39.90	—
62.50	15.40 / 15.30	32.40 / 37.10	30.00 / 35.10	28.90 / 33.80	—
100	19.80 / 19.70	25.20 / 29.70	22.50 / 27.60	24.80 / 29.80	—
150	24.70 / 24.50	16.90 / 22.20	14.90 / 20.20	21.30 / 26.30	—
200	29.00 / 28.80	10.80 / 16.00	8.80 / 14.00	18.80 / 23.70	—
250	32.80 / 32.60	7.30 / 10.80	3.50 / 8.70	16.80 / 21.80	—
300	— / 36.20	— / 6.00	— / 4.00	— / 20.30	—
350	— / 39.50	— / 1.70	— / —	13.90 / 18.90	—
400	— / 42.70*	— / -2.40*	— / —	12.80 / 17.70*	—
450	— / 45.70*	— / -6.20*	— / —	— / 16.70*	—
500	— / 48.60*	— / -9.80*	— / —	10.80 / 15.80*	—

*Values provided for reference only

Transmission Characteristics

Description	
ISO/IEC 11801	Category 6
ANSI/TIA-568.2-D	Category 6
ODVA EtherNet/IP™ Compliant	Category 5e

Color Code

Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

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