

Continuous Flexing IE Cable - Cat6/6a - Shielded

Q5077-1 4 Shielded Pairs 26AWG Cable Specifications

Conductors Gauge & Stranding	26AWG 7/34 Stranded Tinned Copper	Insulated Conductor Diameter	0.037 inch; nominal
Voltage Rating	300V	Twisted Conductor Diameter	0.143 inch; nominal
Temperature Rating, Max.	75°C (167°F)	Overall Diameter	0.245 inch; nominal
Temperature Rating, Min.	-40°C (-40°F)	Jacket Color	Teal
Capacitance, Mutual, Nom.	13.5 pF/ft	Jacket Thickness	0.035 inch; nominal
Capacitance, Grounded, Nom.	N/A	Jacket Material	ZHFR polyurethane
Dielectric Withstanding, Min.	1500V RMS	Sunlight Resistant	No
D.C. Resistance, Max.	42.6 Ω / 1000ft.	Oil Resistance	Yes
Shield	Aluminized Polyester Foil Shield (100% Coverage)	Approvals*	NEC (ETL) TYPE CMX EU CE MARK: MEETS EU DIRECTIVE 2011/65/ EU (RoHS II)
Drain	N/A		
Conductor Insulation Material	Polyvinyl chloride (PVC)		
Conductor Identification	blue-white, orange-white/orange, green-white/green, brown-white/brown	Sample Print Legend	QUABBIN DATAMAX EXTREME HIGH FLEX ZERO HALOGEN INDUSTRIAL ETHERNET/IP PATCH CORD CAT 5e SF/UTP P/N -- C(ETL)US TYPE CMX OIL RES I 26 AWG 75C -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)
Conductor Insulation Wall Thickness	0.009 inch; nominal		
Bare Conductor Diameter	0.019 inch; nominal		

* To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Q5077-1 4 Shielded Pairs 26AWG Cable Specifications

Part Number	Number of Pairs	AWG	Strand	Maximum O.D. (Inches ± 10%)	Minimum Installed Bend Radius (inches) [†]	Minimum Cut Length (ft)**	Approximate Weight (lb/ft)	Price per foot
								
Q5077-1	4	26	7	0.243 [6.17 mm]	1.0	30	0.0326	\$1.30

** See web store www.AutomationDirect.com for maximum cut lengths



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Continuous Flexing IE Cable - Cat6/6a - Shielded

Q5082-1 2 Shielded Pairs 26AWG Cable Specifications			
Conductors Gauge & Stranding	26AWG 7/34 Stranded Tinned Copper	Insulated Conductor Diameter	0.037 inch; nominal
Voltage Rating	300V	Twisted Conductor Diameter	0.120 inch; nominal
Temperature Rating, Max.	75°C (167°F)	Overall Diameter	0.233 inch; nominal
Temperature Rating, Min.	-20°C (-4°F)	Jacket Color	Teal
Capacitance, Mutual, Nom.	13.5 pF/ft	Jacket Thickness	0.046 inch; nominal
Capacitance, Grounded, Nom.	N/A	Jacket Material	ZHFR polyurethane
Dielectric Withstanding, Min.	1500V RMS	Sunlight Resistant	No
D.C. Resistance, Max.	42.6 Ω / 1000ft.	Oil Resistance	Yes
Shield	38AWG tinned copper braid, aluminized polyester foil shield (100% coverage)	Approvals*	NEC (ETL) TYPE CMX CEC C (ETL) TYPE CMX EU CE MARK: MEETS EU DIRECTIVE 2011/65/ EU (RoHS II)
Drain	N/A		
Conductor Insulation Material	Polyvinyl chloride (PVC)		
Conductor Identification	green-white/green, orange-white/orange	Sample Print Legend	QUABBIN DATAMAX EXTREME HIGH FLEX ZERO HALOGEN INDUSTRIAL ETHERNET/IP PATCH CORD CAT 5e SF/UTP P/N -- C(ETL)US TYPE CMX OIL RES I 26 AWG 75C -- CE RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)
Conductor Insulation Wall Thickness	0.009 inch; nominal		
Bare Conductor Diameter	0.019 inch; nominal		

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Q5082-1 2 Shielded Pairs 26AWG Cable Specifications								
Part Number	Number of Pairs	AWG	Strand	Maximum O.D. (Inches ± 10%)	Minimum Installed Bend Radius (inches) ¹	Minimum Cut Length (ft) ^{**}	Approximate Weight (lb/ft)	Price per foot
								
Q5082-1	2	26	7	0.243 [6.17 mm]	1.0	30	0.0285	\$1.38

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Continuous Flexing IE Cable - Cat6/6a - Shielded

Q5088-1 4 Shielded Pairs 26AWG Cable Specifications

Conductors Gauge & Stranding	26AWG 7/34 Stranded Tinned Copper	Insulated Conductor Diameter	0.037 inch; nominal
Voltage Rating	300V	Twisted Conductor Diameter	0.143 inch; nominal
Temperature Rating, Max.	75°C (167°F)	Overall Diameter	0.245 inch; nominal
Temperature Rating, Min.	-40°C (-40°F)	Jacket Color	Teal
Capacitance, Mutual, Nom.	13.5 pF/ft	Jacket Thickness	0.037 inch; nominal
Capacitance, Grounded, Nom.	N/A	Jacket Material	Thermoplastic Elastomer (TPE)
Dielectric Withstanding, Min.	1500V RMS	Sunlight Resistant	No
D.C. Resistance, Max.	42.6 Ω / 1000ft.	Oil Resistance	Yes
Shield	38AWG tinned copper braid, aluminized polyester foil shield (100% coverage)	Approvals*	NEC (UL) TYPE CMX Outdoor - CM CEC C (UL) TYPE CMX Outdoor -CM EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)
Drain	N/A		
Conductor Insulation Material	Polyvinyl chloride (PVC)		
Conductor Identification	blue-white/blue, orange-white/orange, green-white/green, brown-white/brown	Sample Print Legend	QUABBIN DATAMAX EXTREME HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD CAT 5e SF/UTP P/N (xxxx) -- U.S. PATENT NO. US 8,487,184 B2 -- C(UL)US TYPE CMX OUTDOOR - CM 4PR 26 AWG 75C SUN RES -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)
Conductor Insulation Wall Thickness	0.009 inch; nominal		
Bare Conductor Diameter	0.019 inch; nominal		

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Q5088-1 4 Shielded Pairs 26AWG Cable Specifications

Part Number	Number of Pairs	AWG	Strand	Maximum O.D. (Inches ± 10%)	Minimum Installed Bend Radius (inches) ¹	Minimum Cut Length (ft)**	Approximate Weight (lb/ft)	Price per foot
								
Q5088-1	4	26	7	0.245 [6.17 mm]	1.0	30	0.0353	\$1.26

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Continuous Flexing IE Cable - Cat6/6a - Shielded

Q5123-1 4 Shielded Pairs 26AWG Cable Specifications

Conductors Gauge & Stranding	26AWG 7/34 Stranded Tinned Copper	Insulated Conductor Diameter	0.036 inch; nominal
Voltage Rating	300V	Twisted Conductor Diameter	0.072 inch; nominal
Temperature Rating, Max.	75°C (167°F)	Overall Diameter	0.269 inch; nominal
Temperature Rating, Min.	-40°C (-40°F)	Jacket Color	Black
Capacitance, Mutual, Nom.	13.5 pF/ft	Jacket Thickness	0.037 inch; nominal
Capacitance, Grounded, Nom.	N/A	Jacket Material	ZHFR Polyurethane
Dielectric Withstanding, Min.	1500V RMS	Sunlight Resistant	No
D.C. Resistance, Max.	42.6 Ω / 1000ft.	Oil Resistance	IRM 902 OIL, 7 days@100°C
Shield	38AWG tinned copper braid, aluminized polyester foil shield (100% coverage)	Approvals*	NEC (ETL) Type CMX CEC C (ETL) Type CMX EU CE MARK: Meets EU Directive 2011/65/EU (RoHS II)
Drain	N/A		
Conductor Insulation Material	Polyvinyl chloride (PVC)	Sample Print Legend	QUABBIN DATAMAX EXTREME HIGH FLEX ZERO HAOGEN INDUSTRIAL ETHERNET/IP PATCH CORD CAT 6a SF/UTP 5123 (QWC 5123 -C(ETL)US TYPE CMX OIL RES I 26 AWG 75C CM 4PR 26 AWG 75C - CE RoHS - (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)
Conductor Identification	blue-white/blue, orange-white/orange, green-white/green, brown-white/brown		
Conductor Insulation Wall Thickness	0.009 inch; nominal		
Bare Conductor Diameter	0.019 inch; nominal		

* To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Q5123-1 4 Shielded Pairs 22AWG Cable Specifications

Part Number	Number of Pairs	AWG	Strand	Maximum O.D. (Inches ± 10%)	Minimum Installed Bend Radius (inches) ¹	Minimum Cut Length (ft) ^{**}	Approximate Weight (lb/ft)	Price per foot
								
Q5123-1	4	26	7	0.269 [6.17 mm]	1.0	30	0.0373	<u>\$1.71</u>

** See web store www.AutomationDirect.com for maximum cut lengths



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DataMax® Ethernet Cables

Quabbin DataMax Ethernet Cable

The Quabbin DataMax® Category network cables are proudly made in the USA and are available in Cat5e, 6, 6a or 6e. These cables are offered in 26AWG or 24AWG stranded tinned copper or bare solid copper in shielded or unshielded constructions. Designed to be round and smooth, Quabbin DataMax® Category network cables are compatible with most popular plugs for quick termination and easy installation.

When it comes to network cable, flexibility can mean many different things. The first and most obvious is the ease with which it bends. The importance behind having a pliable cable has to do with installation and cabinet routing. Flexibility allows easy manipulation between devices while increasing the durability, which is important when considering a lifetime of "moves & changes" that can occur in a dynamic network environment. Durability is paramount in allowing these changes to take place without compromising the cable.

The Quabbin DataMax® Category network cables exceed the requirements of ANSI/TIA-568-C.2, are compatible with Cat 5e and 6 hardware, and are suitable for applications from 10 Base-T to 1000 Base-T (Gigabit Ethernet).

Also available are Quabbin DataMax® MIL-spec Cat6 cables with black low smoke PVC jacket and special conductor insulations colors.

* DataMax is a registered trademark of Quabbin Wire and Cable Corporation.

** EtherNet/IP is a trademark of ODVA, Inc.

Features

- Available in Category 5e, 6, 6e, and 6a
- In compliance with TIA 568-C.2 and TIA 1005
- Designed for use in EtherNet/IP systems **
- 4 twisted pairs
- Unshielded or overall foil shields
- UL Type CM and UL AWM Style 2463 (80°C, 600V)
- Some cables available with conductor color code for MIL spec applications
- Cut to length in 1 foot increments
- Low 20 foot minimum length
- Made in the USA



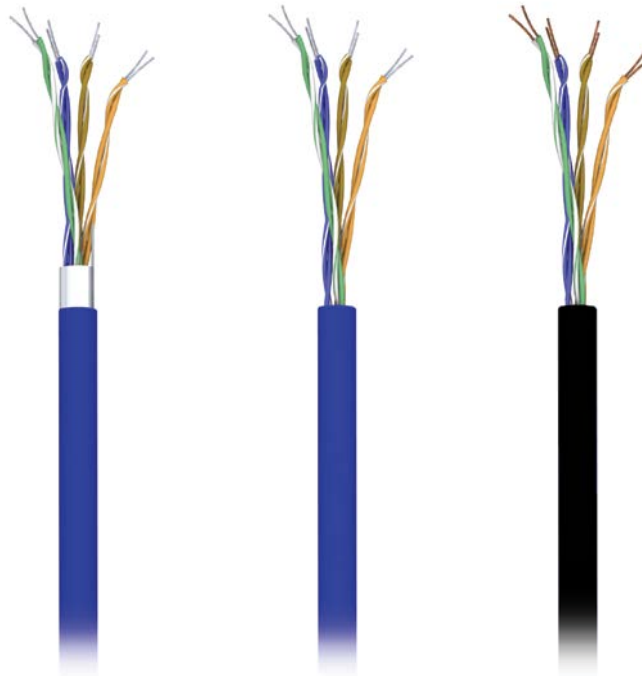
Click on the thumbnail or go to
<https://www.automationdirect.com/VID-WD-0016>
for a short introduction on our cut to length cable



Quabbin Ethernet Cable - Cat5e

Ethernet Cat5e Cable Selection								
Part Number	Wiring Standard	Minimum Cut Length (ft) *	Shield	No. of Pairs	Pair Colors	Description	Approximate Weight (lb/ft)	Price per foot
<u>Q2906-1</u>	Cat5e	20	Shielded	4	Pair 1 - Blue/White & Blue Pair 2 - Orange/White & Orange Pair 3 - Green/White & Green Pair 4 - Brown/White & Brown	shielded, 4 twisted pairs, 26 AWG, 7-stranded, tinned copper, polyethylene conductor insulation material, PVC jacket, blue, cut to length.	0.022	\$0.54
<u>Q5506-1</u>			Unshielded			unshielded, 4 twisted pairs, 26 AWG, 7-stranded, tinned copper, polyethylene conductor insulation material, PVC jacket, blue, cut to length.		\$0.43
<u>Q5943-1</u>						unshielded, 4 twisted pairs, 24 AWG, solid, bare copper, polyethylene conductor insulation material, PVC jacket, black, cut to length.	0.025	\$0.64

* See web store for maximum cut lengths



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Quabbin Ethernet Cable - Cat5e

Ethernet Cat5e Cable Specifications			
	Physical Properties		
	<u>Q2906-1</u>	<u>Q5506-1</u>	<u>Q5943-1</u>
Conductor Gauge and Stranding	26AWG stranded tinned copper; 4 twisted pairs	24AWG stranded tinned copper; 4 twisted pairs	24AWG solid bare copper; 4 twisted pairs
Assembly	Individual conductors twisted into pairs		
Jacket	Blue Polyvinylchloride (PVC)	Blue Polyvinylchloride (PVC)	Black Polyvinylchloride (PVC)
Jacket Insulation Thickness	0.024 inch; Nominal	0.039 inch; Nominal	0.033 inch; Nominal
Shield	Aluminized Polyester Foil Shield (Foil In, 100% Coverage) With a 26AWG Tinned Copper Drain	None	
Overall Cable Diameter	0.222 inch; Nominal	0.215 inch; Nominal	0.230 inch; Nominal
Temperature Rating	-20°C to 75°C (-4°F to 167°F)	-20°C to 75°C (-4°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Plenum	No		
Sunlight Resistant	No		Yes
Minimum Bend Radius	2.22 inch	1 inch	2.30 inch
Conductor Insulation	High Density Polyethelene (HDPE)		
Color Code	Pair 1	Blue/White & Blue	
	Pair 2	Orange/White & Orange	
	Pair 3	Green/White & Green	
	Pair 4	Brown/White & Brown	
Bare Conductor	0.019 inch; Nominal	0.024 inch; Nominal	0.0215 inch; Nominal
Conductor Insulation Thickness	0.010 inch; Nominal	0.007 inch; Nominal	0.008 inch; Nominal
Insulated Conductor Diameter	0.039 inch; Nominal	0.038 inch; Nominal	
Pair Diameter	0.078 inch; Nominal	0.076 inch; Nominal	
Cabled Core Diameter	0.162 inch; Nominal		0.164 inch; Nominal
Print Legend	QUABBIN DATAMAX 5e SCREENED 100 OHM PATCH CORD ISO 11801 P/N xxxx -- TYPE CMR C(UL)US 26 AWG 75C -- ETL VERIFIED TO TIA- 568.2-D CAT 5e -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)	QUABBIN DATAMAX 5E 350 MHZ ISO 11801 PATCH CORD P/N xxxx--(UL) TYPE CMR 24 AWG 75C --CSA LL51726 TYPE CMG 60C --ETL VERIF. TIA-568-C.2 CAT 5e --RoHS --(LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)	

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Quabbin Ethernet Cable - Cat5e

Ethernet Cat5e Cable Specifications (continued)			
	Electrical Characteristics (for 100 meters of cable)		
	Q2906-1	Q5506-1	Q5943-1
Impedance (1–100 MHz)	100Ω ±15Ω, 1 - 100MHz	100Ω ±15Ω, 1 - 350MHz	100Ω ±200Ω, 1 - 200MHz
Capacitance	13.5 pF/ft Nominal @ 1MHz		
Resistance	42.0 Ω DC, per 1000ft	26.0 Ω DC, per 1000ft	26.2 Ω DC, per 1000ft
Voltage Rating (max)	300V		
Dielectric Withstand, Min.	1500V RMS		
Return Loss	$1 \leq f < 10 \text{ MHz}$ 20 + 5 LOG(f) dB MIN		
	$10 \leq f < 20 \text{ MHz}$ 25 dB MIN		
	$20 \leq f \leq 200 \text{ MHz}$ 25 - 8.6 LOG(f/20) dB MIN	$20 \leq f \leq 100 \text{ MHz}$ 25 - 8.6 LOG(f/20) dB MIN	$20 \leq f \leq 200 \text{ MHz}$ 25 - 7 LOG(f/20) dB MIN
Near End Crosstalk (NEXT)	$1 \leq f \leq 200 \text{ MHz}$ 35.3 - 15 LOG(f/100) dB MIN		
Power Sum Near End Crosstalk (PSNEXT)	$1 \leq f \leq 200 \text{ MHz}$ 32.3 - 15 LOG(f/100) dB MIN		
Power Sum Attenuation to Crosstalk Ratio, Far End (PSACRF)	$1 \leq f \leq 200 \text{ MHz}$ 20.8 - 20 LOG(f/100) dB MIN		
Attenuation Crosstalk Ratio, Far End (ACRF)	$1 \leq f \leq 200 \text{ MHz}$ 23.8 - 20 LOG(f/100) dB MIN		
Insertion Loss	$1 \leq f \leq 100 \text{ MHz}$ $1.5[1.967\sqrt{f} + 0.023(f) + 0.050/\sqrt{f}]$ dB MAX	$1 \leq f \leq 100 \text{ MHz}$ $1.2[1.967\sqrt{f} + 0.023(f) + 0.050/\sqrt{f}]$ dB MAX	$1 \leq f \leq 200 \text{ MHz}$ $1.967\sqrt{f} + 0.023(f) + 0.050/\sqrt{f}$ dB MAX
Delay	$1 \leq f \leq 100 \text{ MHz}$ $534 + 36/\sqrt{f}$ ns MAX	$1 \leq f \leq 100 \text{ MHz}$ $534 + 36/\sqrt{f}$ ns MAX	$1 \leq f \leq 200 \text{ MHz}$ $534 + 36/\sqrt{f}$ ns MAX
Delay Skew	$1 \leq f < 100 \text{ MHz}$ < 25 ns		$1 \leq f \leq 200 \text{ MHz}$ < 25 ns
Velocity Of Propagation	68%		
UL Classification	(UL) Type CMR	(UL) Type CMR, (CSA) Type CMG	(UL) Type CMR, & CMX
Agency Approval	cULus, ETL, RoHS	UL, CSA, ETL, RoHS	cULus, ETL, RoHS

NOTE: All testing conducted off the reel.



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