# Cat5e Ethernet



QUABBIN® WIRE & CABLE CO., INC.
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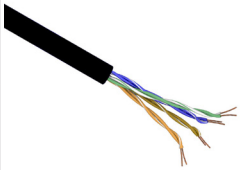
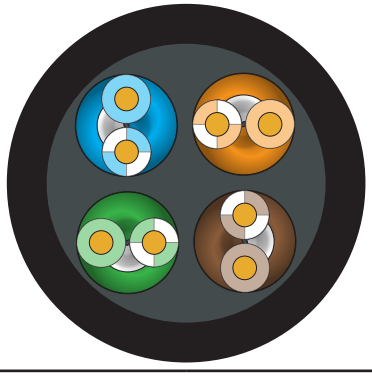
## Q5943-1 Cable Specifications



| Part Number | Wire/Cable Type | Flexibility | Minimum Cut Length (ft)* | Approximate Weight (lb/ft) | Price per foot |
|---|---|---|---|---|---|
| Q5943-1 | Cat5e Ethernet | Semi-flexible | 20 | 0.03 | $5gug: |

| Physical Properties | | | | |
|---|---|---|---|---|
| **Conductor Gauge** | | 24 AWG | **Conductor Stranding** | Solid Bare Copper |
| **Conductor Material** | | Bare Copper | **Conductor Insulation Wall Thickness** | 0.008 in, nominal |
| **Conductor Assembly** | | 4 twisted pairs | **Bare Conductor Diameter** | 0.022 in, nominal |
| **Color Code** | **Pair 1** | Blue, White/Blue | **Insulated Conductor Diameter** | 0.038 in, nominal |
| | **Pair 2** | Orange, White/Orange | **Twisted Conductor Diameter** | 0.076 in, nominal |
| | **Pair 3** | Green, White/Green | **Overall Cable Diameter** | 0.230 in, nominal |
| | **Pair 4** | Brown, White/Brown | **Jacket Color** | Black |
| **Voltage Rating** | | 300V | **Jacket Thickness** | 0.033 in, nominal |
| **Temperature Rating** | | -40 to 75 °C (-40 to 167 °F) | **Jacket Material** | PVC |
| **Plenum** | | No | **Sunlight Resistant** | Yes |
| **Shield** | | Unshielded | **Oil Resistance** | No |
| **Drain** | | No | **Flame Retardant** | No |
| **Conductor Insulation Material** | | Polyethylene | **Sample Print Legend** | 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) |
| **Minimum Bend Radius** | | 2.30in | | |
| **Cabled Core Diameter** | | 0.164 in | | |

| Electrical Characteristics (for 100 meters of cable) | | | |
|---|---|---|---|
| **Impedance** | 100 ± 200 Ω (1 - 200 MHz) | **UL Classification** | (UL) Type CMR, & CMX |
| **Capacitance** | 13.5 pF/ft @ 1MHz; Nominal | **Approvals**** | cULus, ETL, RoHS |
| **Resistance, Max.** | 26.2 Ω DC per 1000ft | **Attenuation Crosstalk Ratio, Far End (ACRF)** | $1 \le f \le 200$ MHz: 23.8 - 20 LOG($f$/100) dB MIN |
| **Dielectric Withstanding, Min.** | 1500V RMS | **Insertion Loss** | $1 \le f \le 200$ MHz: 1.967 $\sqrt{f}$ + 0.023($f$) + 0.050/$\sqrt{f}$ dB MAX |
| **Return Loss** | $1 \le f < 10$ MHz: 20 + 5 LOG($f$) dB MIN<br>$10 \le f < 20$ MHz: 25 dB MIN<br>$20 \le f \le 200$ MHz: 25 - 7 LOG($f$/20) dB MIN | **Power Sum Attenuation to Crosstalk Ratio, Far End (PSACRF)** | $1 \le f \le 200$ MHz: 20.8 - 20 LOG($f$/100) dB MIN |
| **Near End Crosstalk (NEXT)** | $1 \le f \le 200$ MHz: 35.3 - 15 LOG($f$/100) dB MIN | **Cross Section** |  |
| **Power Sum Near End Crosstalk (PSNEXT)** | $1 \le f \le 200$ MHz: 32.3 - 15 LOG($f$/100) dB MIN | | |
| **TCL** | N/A | | |
| **ELTCTL** | N/A | | |
| **Velocity of Propagation** | 0.68 | | |
| **Delay** | $1 \le f \le 200$ MHz: 534 + 36/$\sqrt{f}$ ns MAX | | |
| **Delay Skew** | $1 \le f \le 200$ MHz: <25 ns | | |

*** See web store www.AutomationDirect.com for maximum cut lengths**
**** To obtain the most current agency approval information, see the Agency Approval Checklist section on the part number's web page at www.AutomationDirect.com**



**Please Note: Our prices on Ethernet Cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.**

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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 5 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*