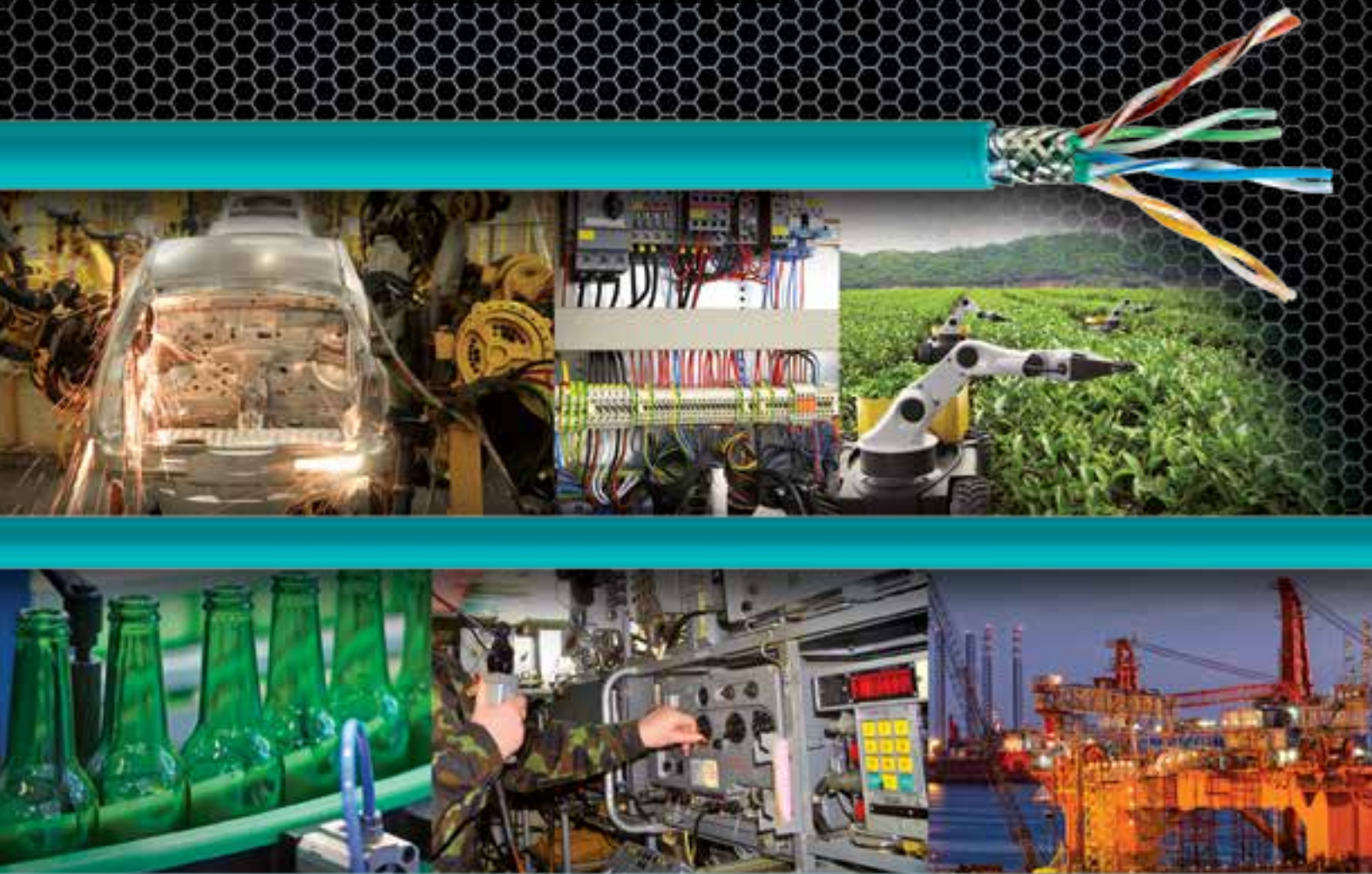


AUTOMATION AND HARSH ENVIRONMENT DATA AND CONTROL CABLE

From the Stranded Data Cable Experts



[www.quabbin.com/
harsh-environment-cable](http://www.quabbin.com/harsh-environment-cable)



Featuring DataMax® Extreme
Catalog and Reference Guide

Choose Quabbin — the Stranded Data Cable Experts

Superior performance — expect it from our cable and from our company.

At Quabbin, our focus is on being the industry leader and manufacturing the best and most reliable cable for the industrial market. Our advanced design, manufacturing, and customer service bring you world-class harsh environment and automation cable. We believe we only succeed when our customers succeed.



Customers choose us for the value we provide through product and service quality. Our cable is manufactured in a single U.S. facility and constructed to industry standards with proprietary, high-speed equipment. Advanced, real-time process controls monitor quality and dimensional integrity throughout the manufacturing cycle. This establishes a foundation of quality at the beginning of the cable supply chain and contributes to assembly cost control by increasing yield and reducing rework and scrap.



Our ISO 9001 quality system ensures superior lot traceability, consistency, and customer focus. With inventory stocked throughout North America, ordering and delivery are quick and easy.

Cable design experts and sales support representatives are easily accessible and welcome feedback and suggestions. We aim to be a trusted partner to address your design, processing, and delivery needs.

Quabbin has been the trusted choice of assemblers, OEMs, and cable distributors for nearly five decades. Choose Quabbin — the stranded data cable experts.

www.quabbin.com • (800) 368-3311

www.quabbin.com/harsh-environment-cable



Cable Finder

Search our products:

- Application
- Ratings & Approvals
- Part Number
- Physical Properties
- Construction
- Category

➔ www.quabbin.com/cable-finder



Inventory Finder

Check our inventory:

- Part Number
- Warehouse Location
- Quantity Available

➔ www.quabbin.com/inventory

Cable Engineered for Your Harsh Environment

Quabbin Wire & Cable designs and manufactures the best Industrial Ethernet and Profinet® cable in the world. Our continuous-flex cable cores and custom TPE cable jackets have a proven record in factory automation applications. Engineered to withstand greater than 10 million rolling bend flexes, 3 million torsional flexes and exposure to oils, chemicals and weld spatter, our cable can save thousands of hours in production downtime. Choose Quabbin for harsh applications such as military, oil and gas, food and beverage, and live entertainment. Our cable design experts are eager to consult with you about your project needs.



CONTENTS

| | |
|--|-----------|
| Industrial Ethernet/Profinet® Cable | 2 |
| DataMax® Extreme Quick Reference Guide | 3 |
| Cat 6/6a / 26 AWG | 4 |
| Cat 6/6a / 24 AWG | 4 |
| Cat 5e / 26 AWG. | 5 |
| Cat 5e / 24 AWG. | 6 |
| Cat 5e / 22 AWG. | 8 |
| Profinet® Type B & C | 9 |
| Power Limited Tray Cable | 11 |
| 600 Volt AWM Control Cable | 13 |
| Cable Testing | 15 |
| Reference Guide | 17 |
| Copper Conductor Facts | 17 |
| Connectors for Harsh Environment Ethernet Cable | 18 |
| Quabbin: Making Single-Cable PoE for Harsh Environments an Easy Choice | 20 |
| Quabbin Website Tools | 21 |

DataMax® Extreme Industrial Ethernet/Profinet®

Superior construction and design ensures DataMax® Extreme Industrial Ethernet cable possesses all of the characteristics necessary to withstand harsh environments while performing above industry standards for signal transmission. The result is a family of cable products that fully comply with TIA 568.2-D commercial, TIA 1005, and ODVA industrial communication specifications, while reducing downtime and increasing productivity.

APPLICATIONS

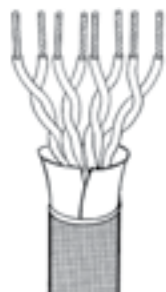
- Factory Automation
- Robotic Control
- Machine Vision
- Food and Beverage
- Oil & Gas
- Military
- Renewable Energy
- Transportation
- Harsh Environments
- Profinet® (see page 9)
- Ethernet/IP
- Live Entertainment

LISTINGS/RATINGS

- CL3
- CM
- CMR
- CMX
- CMX Outdoor
- ITC
- MSHA
- PLTC
- PLTC-ER
- UL AWM Style 2463 600V
- UL Oil Res. I & II
- VW-1

FEATURES & DESIGN OPTIONS

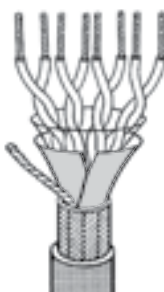
- 22, 24, 26 & 28 AWG stranded tinned copper
- 2 or 4 pair (similar diameter allows shared assembly tooling)
- Unshielded, foil shield w/drain, and foil shield w/braid
- PVC, TPE, PUR, CPE, or ZHFR PUR jacket
- Flexible or continuous flex
- Weld spatter resistant
- Chemical/oil resistant
- RoHS compliant
- UV resistant
- Patented shield system



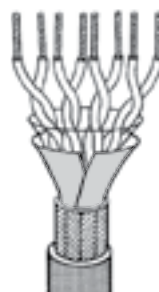
Hi-flex Unshielded
with Separator Tape



Overall Foil Shield
with Drain Wire



Double Shield: Foil,
Drain Wire, Braid



Hi-flex Double Shield:
Foil, Braid

Depicted at left are the various 4 pair cable constructions. Each design is also available in a similar 2 pair configuration. Contact our cable design experts at 800-368-3311 for technical support for your application and project needs.

DataMax® Extreme Quick Reference Guide

A side by side sampling of our most popular Industrial Ethernet constructions

| Category | AWG | Pair Count | Foil Shield | Foil Shield w/ Braid | Profinet® Type B & C | Jacket | Ratings & Approvals | Hi-Flex | Nominal OD | Part Numbers | Page |
|----------|-----|------------|-------------|----------------------|----------------------|----------|---|---------|--------------|--------------|------|
| 6/6a | 26 | 4 | | • | | PUR | | • | .239"/6.07mm | 5919 | 4 |
| 6/6a | 26 | 4 | | • | | TPE | CM, CMX Outdoor | • | .275"/6.99mm | 5048, 5026 | 4 |
| 6/6a | 24 | 4 | | • | | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .325"/8.26mm | 5925, 5922 | 4 |
| 6/6a | 24 | 4 | | • | | PUR | | • | .291"/7.39mm | 5936 | 4 |
| 6/6a | 24 | 4 | | • | • | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .325"/8.26mm | 5937 | 9 |
| 5e | 26 | 2 | • | | | PVC | CMR | | .209"/5.31mm | 5030, 5032 | 5 |
| 5e | 26 | 2 | • | | | PUR | | | .229"/5.82mm | 5040, 5042 | 5 |
| 5e | 26 | 2 | • | | | TPE | CM | | .209"/5.31mm | 5035, 5037 | 5 |
| 5e | 26 | 4 | • | | | PVC | CMR | | .220"/5.59mm | 5725, 5727 | 5 |
| 5e | 26 | 4 | • | | | PUR | | | .220"/5.59mm | 5710, 5712 | 5 |
| 5e | 26 | 4 | • | | | TPE | CM, CMX Outdoor | | .237"/6.02mm | 5760, 5762 | 5 |
| 5e | 26 | 2 | | • | | ZHFR PUR | CMX, UL Oil Res. I | • | .233"/5.92mm | 5080, 5082 | 5 |
| 5e | 26 | 2 | | • | | PUR | | • | .225"/5.72mm | 5055, 5057 | 5 |
| 5e | 26 | 2 | | • | | PVC | CMR | | .224"/5.69mm | 5060, 5062 | 5 |
| 5e | 26 | 2 | | • | | TPE | CM, CMX Outdoor | • | .225"/5.72mm | 5085, 5087 | 5 |
| 5e | 26 | 4 | | • | | ZHFR PUR | CMX, UL Oil Res. I | • | .245"/6.22mm | 5075, 5077 | 5 |
| 5e | 26 | 4 | | • | | PUR | | | .220"/5.59mm | 5730, 5732 | 5 |
| 5e | 26 | 4 | | • | | PVC | CMR | | .228"/5.79mm | 5739, 5741 | 5 |
| 5e | 26 | 4 | | • | | TPE | CM, CMX Outdoor | | .245"/6.22mm | 5734, 5736 | 5 |
| 5e | 26 | 4 | | • | | TPE | CM, CMX Outdoor | • | .245"/6.22mm | 5083, 5088 | 5 |
| 5e | 24 | 2 | | | | PUR | | • | .220"/5.59mm | 5000, 5016 | 6 |
| 5e | 24 | 2 | | | | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .240"/6.10mm | 5770, 5772 | 6 |
| 5e | 24 | 2 | | | | PVC | CMR | | .220"/5.59mm | 5780, 5782 | 6 |
| 5e | 24 | 4 | | | | PUR | | • | .240"/6.10mm | 5700, 5716 | 6 |
| 5e | 24 | 4 | | | | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .248"/6.30mm | 5750, 5752 | 6 |
| 5e | 24 | 4 | | | | PVC | CMR | | .227"/5.77mm | 5915, 5916 | 6 |
| 5e | 24 | 4 | • | | | TPE | CM, CMX Outdoor | | .273"/6.93mm | 5928, 5929 | 7 |
| 5e | 24 | 2 | | • | | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .265"/6.73mm | 5023, 5025 | 7 |
| 5e | 24 | 4 | | • | | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .290"/7.37mm | 5089, 5090 | 7 |
| 5e | 22 | 2 | | | | PUR | | • | .235"/5.97mm | 5020, 5022 | 8 |
| 5e | 22 | 2 | | | | TPE | CM, CMX Outdoor, MSHA, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .270"/6.86mm | 5900, 5902 | 8 |
| 5e | 22 | 4 | | | | PUR | | • | .260"/6.60mm | 5120, 5122 | 8 |
| 5e | 22 | 4 | | | | TPE | CM, CMX Outdoor, MSHA, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .290"/7.37mm | 5800, 5802 | 8 |
| 5e | 22 | 2 | | • | | TPE | CM, CMX Outdoor, ITC, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .317"/8.05mm | 5920 | 8 |
| 5e | 22 | 4 | | • | | TPE | ITC, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .354"/8.99mm | 5921 | 8 |
| 5e | 22 | 2 | | • | • | TPE | ITC, MSHA, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .317"/8.05mm | 5924 | 9 |
| 5e | 22 | Quad | | • | • | TPE | CL3, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .250"/6.35mm | 5094 | 9 |
| 5e | 22 | Quad | | • | • | TPE | CM, PLTC-ER | • | .305"/7.75mm | 5099 | 9 |



DataMax® Extreme Industrial Ethernet Cat 6/6a / 26 AWG

- » RoHS Compliant
- » Spline
- » Temp. Max 75°C
- » See our most popular constructions below
- » Popular constructions below; custom constructions available upon request
- » Available in black, blue, teal, and red jacket
- » Contact our cable design experts for technical support

Foil Shield & Braid

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---------------------|----------|--------------|--|
| 5919 | | 4 | PUR | | • | .239"/6.07mm | 70m |
| 5048 | 5026 | 4 | TPE | CM, CMX Outdoor | • | .275"/6.99mm | 70m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test



DataMax® Extreme Industrial Ethernet Cat 6/6a / 24 AWG

- » RoHS Compliant
- » Spline
- » Temp. Max 75°C
- » See our most popular constructions below
- » Popular constructions below; custom constructions available upon request
- » Available in black, blue, teal, and red jacket
- » Contact our cable design experts for technical support

Foil Shield & Braid

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---|----------|--------------|--|
| 5925 | 5922 | 4 | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .325"/8.26mm | 88m |
| 5936 | | 4 | PUR | | • | .291"/7.39mm | 88m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test





DataMax® Extreme Industrial Ethernet

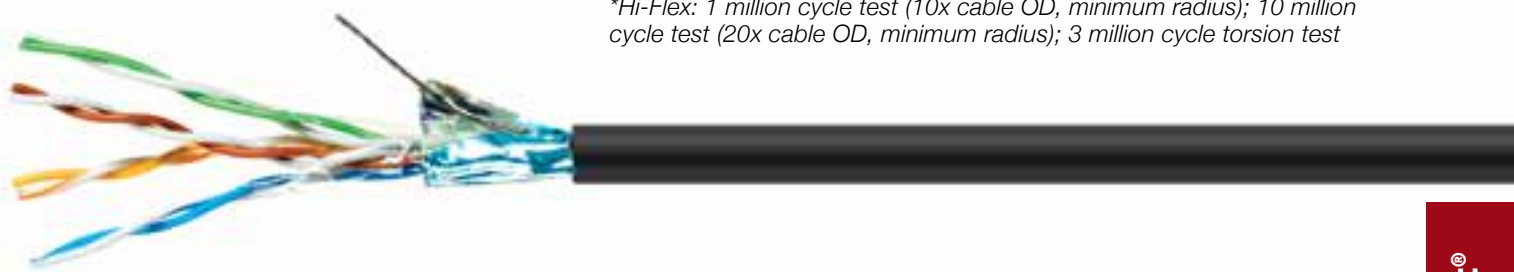
Cat 5e / 26 AWG

- » RoHS Compliant
- » Stranded 26 AWG 7/36 Tinned Copper
- » See our most popular constructions below
- » Popular constructions below; custom constructions available upon request
- » Available in black, blue, teal, and red jacket
- » Contact our cable design experts for technical support

Foil Shield

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---------------------|----------|--------------|--|
| 5030 | 5032 | 2 | PVC | CMR | | .209"/5.31mm | 68m |
| 5040 | 5042 | 2 | PUR | | | .229"/5.82mm | 68m |
| 5035 | 5037 | 2 | TPE | CM | | .209"/5.31mm | 68m |
| 5725 | 5727 | 4 | PVC | CMR | | .220"/5.59mm | 68m |
| 5710 | 5712 | 4 | PUR | | | .220"/5.59mm | 68m |
| 5760 | 5762 | 4 | TPE | CMX, CMX Outdoor | | .237"/6.02mm | 68m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test



Foil Shield & Braid

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|----------|---------------------|----------|--------------|--|
| 5080 | 5082 | 2 | ZHFR PUR | CMX, UL Oil Res. I | • | .233"/5.92mm | 68m |
| 5055 | 5057 | 2 | PUR | | • | .225"/5.72mm | 68m |
| 5060 | 5062 | 2 | PVC | CMR | | .224"/5.69mm | 68m |
| 5085 | 5087 | 2 | TPE | CM, CMX Outdoor | • | .225"/5.72mm | 68m |
| 5075 | 5077 | 4 | ZHFR PUR | CMX, UL Oil Res. I | • | .245"/6.22mm | 68m |
| 5730 | 5732 | 4 | PUR | | | .220"/5.59mm | 68m |
| 5739 | 5741 | 4 | PVC | CMR | | .228"/5.79mm | 68m |
| 5734 | 5736 | 4 | TPE | CM, CMX Outdoor | | .245"/6.22mm | 68m |
| 5083 | 5088 | 4 | TPE | CM, CMX Outdoor | • | .245"/6.22mm | 68m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test





DataMax® Extreme Industrial Ethernet

Cat 5e / 24 AWG

- » RoHS Compliant
- » Stranded 24 AWG 7/32 Tinned Copper
- » See our most popular constructions below
- » Popular constructions below; custom constructions available upon request
- » Available in black, blue, teal, and red jacket
- » Contact our cable design experts for technical support

Unshielded

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---|----------|--------------|--|
| 5000 | 5016 | 2 | PUR | | • | .220"/5.59mm | 85m |
| 5770 | 5772 | 2 | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .240"/6.10mm | 85m |
| 5780 | 5782 | 2 | PVC | CMR | | .220"/5.59mm | 85m |
| 5700 | 5716 | 4 | PUR | | • | .240"/6.10mm | 85m |
| 5750 | 5752 | 4 | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .248"/6.30mm | 85m |
| 5915 | 5916 | 4 | PVC | CMR | | .227"/5.77mm | 85m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test





DataMax® Extreme Industrial Ethernet

Cat 5e / 24 AWG

- » RoHS Compliant
- » Stranded 24 AWG 7/32 Tinned Copper
- » See our most popular constructions below
- » Popular constructions below; custom constructions available upon request
- » Available in black, blue, teal, and red jacket
- » Contact our cable design experts for technical support

Foil Shield

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---------------------|----------|--------------|--|
| 5928 | 5929 | 4 | TPE | CM, CMX Outdoor | | .273"/6.93mm | 85m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test



Foil Shield & Braid

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---------------------------------|----------|--------------|--|
| 5023 | 5025 | 2 | TPE | CM, CMX, UL AWM Style 2463 600V | • | .265"/6.73mm | 85m |
| 5089 | 5090 | 4 | TPE | CM, CMX, UL AWM Style 2466 600V | • | .290"/7.37mm | 85m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test





DataMax® Extreme Industrial Ethernet

Cat 5e / 22 AWG

- » RoHS Compliant
- » Stranded 22 AWG 19/.0058 Tinned Copper
- » Temp. Max 75°C
- » See our most popular constructions below
- » Popular constructions below; custom constructions available upon request
- » Available in black, blue, teal, and red jacket
- » Contact our cable design experts for technical support

Unshielded

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|---|----------|--------------|--|
| 5020 | 5022 | 2 | PUR | | • | .235"/5.97mm | 100m |
| 5900 | 5902 | 2 | TPE | CM, CMX Outdoor, MSHA, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .270"/6.86mm | 100m |
| 5120 | 5122 | 4 | PUR | | • | .260"/6.60mm | 100m |
| 5800 | 5802 | 4 | TPE | CM, CMX Outdoor, MSHA, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .290"/7.37mm | 100m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test



Foil Shield & Braid

| Black Jacket Part Number | Teal Jacket Part Number | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|--------------------------|-------------------------|------------|--------|--|----------|--------------|--|
| | 5920 | 2 | TPE | CM, CMX Outdoor, ITC, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .317"/8.05mm | 100m |
| | 5921 | 4 | TPE | ITC, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .354"/8.99mm | 100m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test





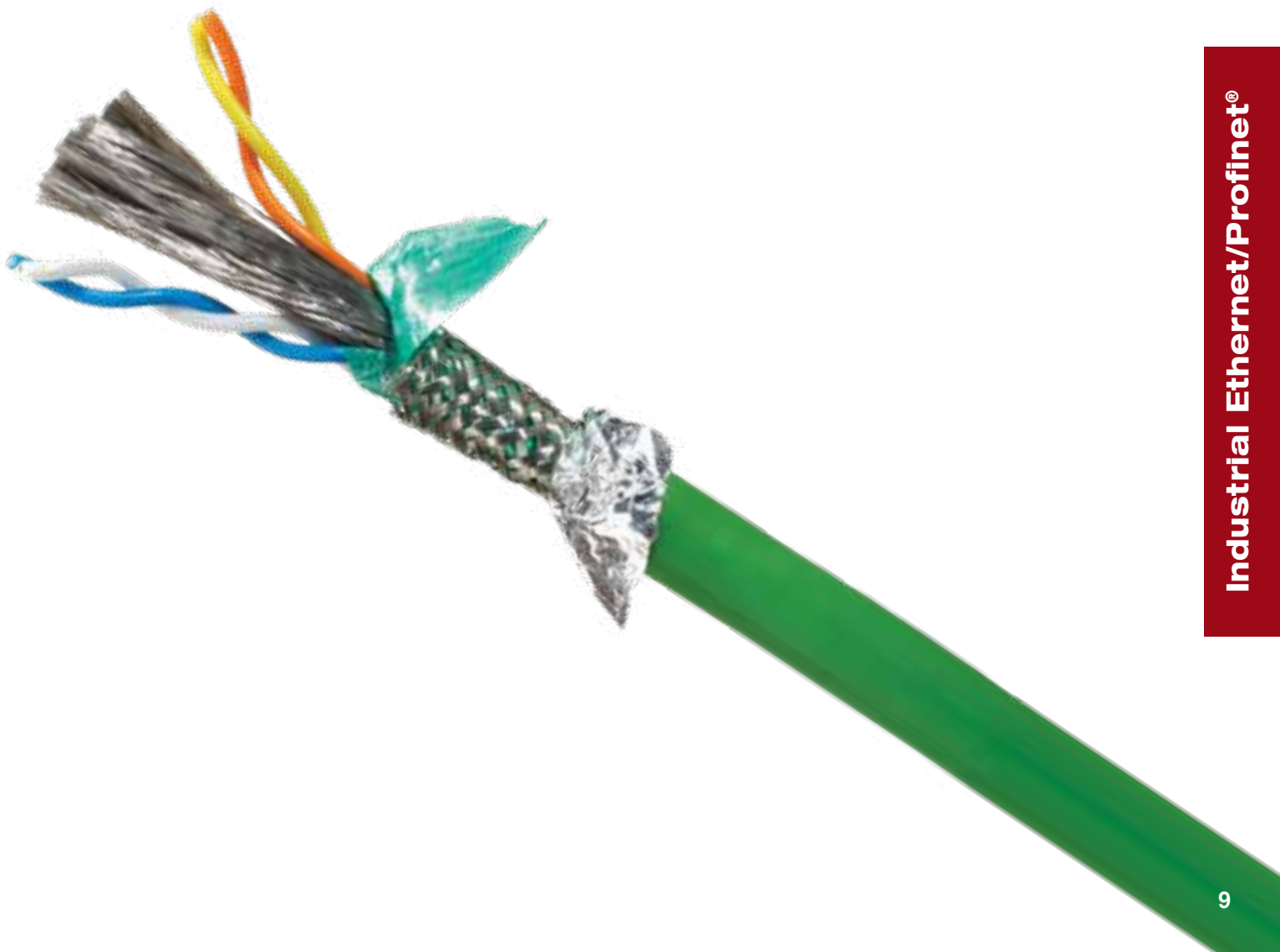
DataMax® Extreme Industrial Ethernet

Profinet® Type B & C Foil Shield & Braid

- » RoHS Compliant
- » Stranded Tinned Copper
- » Temp. Max 75°C
- » Popular constructions below; custom constructions available upon request
- » Contact our cable design experts for technical support

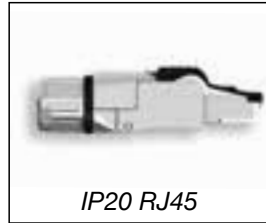
| Part Number | Category | AWG | Pair Count | Jacket | Ratings & Approvals | Hi-Flex* | Nom. OD | Max Plug to Plug Transmission Distance and POE |
|-------------|----------|-----|------------|--------|---|----------|--------------|--|
| 5094 | 5e | 22 | Quad | TPE | CL3, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .250"/6.35mm | 100m |
| 5099 | 5e | 22 | Quad | TPE | CM, PLTC-ER | • | .305"/7.75mm | 100m |
| 5924 | 5e | 22 | 2 | TPE | ITC, MSHA, PLTC, UL AWM Style 2463 600V, UL Oil Res. I & II | • | .317"/8.05mm | 100m |
| 5937 | 6/6a | 24 | 4 | TPE | CM, CMX Outdoor, UL AWM Style 2463 600V | • | .325"/8.26mm | 83m |

*Hi-Flex: 1 million cycle test (10x cable OD, minimum radius); 10 million cycle test (20x cable OD, minimum radius); 3 million cycle torsion test



INDUSTRIAL ETHERNET (IE) APPLICATION

Quabbin's family of Industrial Ethernet cable was developed to reliably survive industrial hazards. Cable may be terminated using special RJ-45 modular plugs that have been adapted for harsh environments or industrial M12 connectors that have been modified for Ethernet transmission. These connectors use O-rings, overmolding,



IP20 RJ45

and/or sealing gaskets to bond to the cable jackets, providing a mated connection that resists fluids, dust, vibration, and other hazards, yet often may be field assembled. Assembly ratings of IP67 and IP69 are achievable when properly terminated using sealed connectors, assuring resistance to both fluid and dust particle penetration.



IP67 M12 X Code

CABLE CONSTRUCTION OPTIONS

DataMax® Extreme cable is available in a variety of constructions. All five cable jacket options can be applied to 2-pair or 4-pair unshielded designs with 24 AWG or 22 AWG stranded conductors. Shielded designs are also offered in 2 or 4-pair with four available jackets using 22, 24 or 26 AWG stranded conductors.

For applications calling for 24 AWG solid conductor cable, DataMax® Extreme 22 AWG stranded conductor cable is an ideal Hi-Flex alternative. The low insertion loss of 22 AWG

allows runs up to 100 meters, matching the performance of 24 AWG solid conductor cable without sacrificing flexibility or flex life.

Quabbin's unshielded cable pairs have exceptional "balance" that provides a high degree of isolation from EMI and other emissions. The outstanding balance means, no matter your choice, shielded or unshielded, you can be sure you are getting the best cable for your application.

PRESSURE EXTRUDED JACKETS

Quabbin DataMax® Extreme jackets were developed to survive many of the industrial hazards that commercial jackets will not. DataMax® Extreme jackets are pressure extruded over the cable core, effectively locking the pairs in place.

This provides very stable electrical performance, even when the cable is impacted, bent, or repeatedly flexed. Pressure extrusion also provides a very smooth, round jacket that aids termination and sealing.

DATAMAX® EXTREME JACKET COMPARISON INFORMATION

| Performance Criteria | Jacket Material* | | | | |
|---|------------------|----------------|----------------|-----------|-----------|
| | Industrial PVC | CPE** | TPE | PUR | ZHFR PUR |
| Ultraviolet and Weather Resistance | Fair | Excellent | Excellent | Good | Good |
| Resistance to Petrochemicals | Good | Good/Excellent | Good/Excellent | Fair | Fair |
| Resistance to Flame and Fire | Excellent | Excellent | Good/Excellent | Fair | Good |
| Resistance to Moisture | Good | Excellent | Excellent | Excellent | Good |
| Resistance to Bases | Good | Good | Good | Good | Fair |
| Resistance to Acids | Fair | Excellent | Good | Fair | Fair |
| Resistance to Ozone | Excellent | Good | Good | Good | Good |
| Tensile Strength and Toughness | Good | Excellent | Fair | Excellent | Good |
| Flexibility and Flex Life | Fair | Excellent | Excellent | Excellent | Excellent |
| Resistance to Abrasion and Scruff | Good | Excellent | Good | Excellent | Excellent |
| Resistance to Tear | Fair | Excellent | Good | Excellent | Excellent |
| Low Temperature Flexibility and Brittle Point | Fair | Excellent | Excellent | Excellent | Excellent |
| RoHS Compliant and Lead Free | Yes | Yes | Yes | Yes | Yes |
| Resistance to Crush | Fair | Good | Fair | Good | Good |
| Resistance to Cut | Fair | Good | Fair | Good | Good |
| Heat >105° C | Good | Good | Good | Fair | Fair |
| Resistance to Weld Spatter | Fair | Fair | Excellent | Fair | Fair |

* Contact us for other available jacket materials not listed above.

**CPE jacket is possible on many constructions. Contact our cable design experts for technical support.

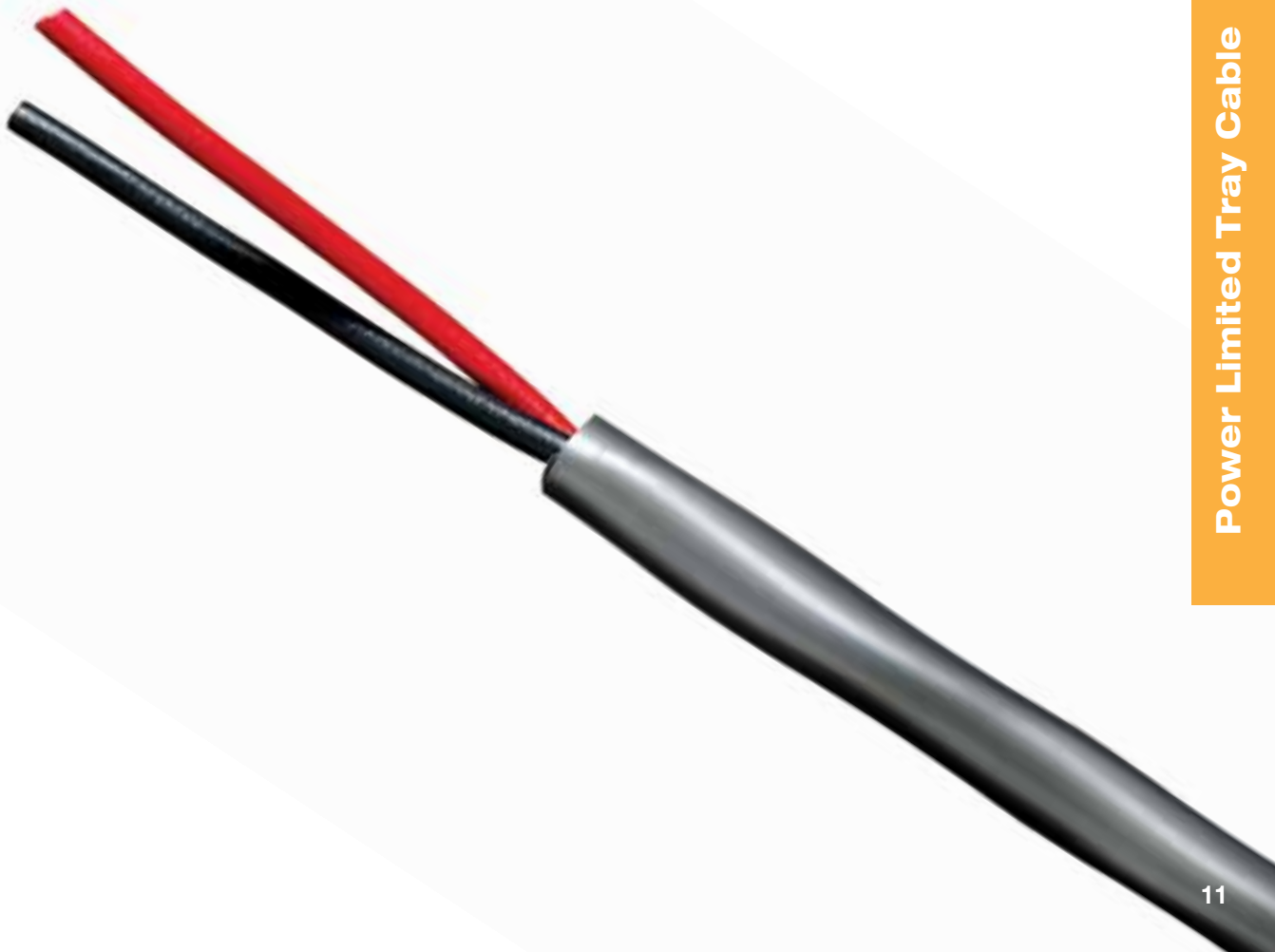


Power Limited Tray Cable

Unshielded / 12-22 AWG

- » Available in 12-22 AWG Stranded Tinned Copper
- » 2 or 3 Conductor Constructions
- » Sunlight Resistant PVC Jacket
- » RoHS Compliant
- » ITC, PLTC
- » Process System Interconnect
- » Instrumentation & Control
- » Class 3 Circuits
- » UL AWM Style 2464
- » CSA AWM I/II A/B, CSA FAS
- » Temp. Max 80, 90 & 105°C
- » Temp. Min. -20°C
- » Voltage Rating Max 300
- » Chrome Gray Jacket—other colors available upon request
- » Popular stocked parts listed below; check website for inventory, additional parts and specifications.

| Part Number | Conductor Count | Belden Equal | Carol/General Equal | AWG | Stranded Tinned Copper | Nominal O.D. |
|-------------|-----------------|--------------|---------------------|-----|------------------------|--------------|
| 0130 | 2 | 9407 | | 22 | 7/30 | .200"/5.08mm |
| 0140 | 2 | 9409 | C0435 | 18 | 16/30 | .230"/5.84mm |
| 0190 | 3 | | | 22 | 7/30 | .209"/5.31mm |
| 0195 | 3 | 9492 | C0434 | 20 | 10/30 | .224"/5.69mm |
| 0200 | 3 | 9493 | C0436 | 18 | 16/30 | .242"/6.15mm |





Power Limited Tray Cable

Shielded / 12-22 AWG

- » Available in 12-22 AWG Stranded Tinned Copper
- » 2 or 3 Conductor Constructions
- » Sunlight Resistant PVC Jacket
- » RoHS Compliant
- » ITC, PLTC
- » Process System Interconnect
- » Instrumentation & Control
- » Class 3 Circuits
- » UL AWM Style 2464
- » CSA AWM I/II A/B, CSA FAS
- » Temp. Max 80, 90 & 105°C
- » Temp. Min. -20°C
- » Voltage Rating Max 300
- » Drain Wire
- » Chrome Gray Jacket—other colors available upon request
- » Popular stocked parts listed below; check website for inventory, additional parts and specifications.

| Part Number | Conductor Count | Belden Equal | Carol/General Equal | AWG | Stranded Tinned Copper | Nominal O.D. |
|-------------|-----------------|--------------|---------------------|-----|------------------------|--------------|
| 0160 | 2 | 9322 | C0450 | 22 | 7/30 | .203"/5.16mm |
| 0165 | 2 | 9320 | C0452 | 20 | 10/30 | .215"/5.46mm |
| 0170 | 2 | 9318 | C0454 | 18 | 16/30 | .233"/5.92mm |
| 0175 | 2 | 9316 | | 16 | 19/.0117" | .257"/6.53mm |
| 0220 | 3 | 9364 | C0453 | 20 | 10/30 | .227"/5.77mm |
| 0225 | 3 | 9365 | C0455 | 18 | 16/30 | .245"/6.22mm |



**Shielded PLTC cable
is also available in a
Multipair construction**

600 Volt AWM Control Cable

Quabbin Wire & Cable's reduced diameter 600 V-Trol® control cable offers designers and engineers a smaller cable to meet cost and application goals for many industrial applications.

Benefits Of Quabbin Reduced Diameter Cable:

- **A design that is 60+% smaller than the competition**
- **Greater flexibility**
- **Lighter weight construction**
- **Fits smaller connectors**
- **Easier to install**
- **Smaller bend diameter**
- **Improved conduit & duct fill**
- **Simpler junction box and panel layout**

Applications:

- **Air handling**
- **Auxiliary power generation**
- **Dust controls**
- **Factory automation**
- **Factory controls**
- **Heating curtains**
- **HVAC**
- **Lighting controls**
- **Oil & gas boilers/furnaces**
- **Remote monitoring**
- **Ventilation system**



600 Volt AWM Control Cable 14-22 AWG

- » Unique thinner construction on all 600 V-Trol® (600 Volt) cable
- » Available in 14-22 AWG Stranded Tinned Copper
- » 2-25 Conductor Constructions
- » Sunlight Resistant PVC Jacket
- » UL AWM Style 2586 VW-1
- » CSA AWM I/II A/B 600V FT4
- » Temp. Max 105°C
- » Temp. Min. -20°C
- » Voltage Rating Max 600V
- » Ripcord
- » RoHS Compliant
- » Chrome Gray Jacket—other colors available upon request
- » Popular stocked parts listed below; check website for inventory, additional parts and specifications.

Unshielded

| Part Number | Conductor Count | Belden Equal | Carol/General Equal | AWG | Stranded Tinned Copper | Nominal O.D. |
|-------------|-----------------|--------------|---------------------|-----|------------------------|---------------|
| 0717 | 12 | N/A | N/A | 20 | 7/28 | .350"/8.89mm |
| 0721 | 2 | N/A | N/A | 18 | 16/30 | .221"/5.61mm |
| 0722 | 3 | N/A | N/A | 18 | 16/30 | .233"/5.92mm |
| 0724 | 5 | N/A | N/A | 18 | 16/30 | .275"/6.99mm |
| 0725 | 7 | N/A | N/A | 18 | 16/30 | .298"/7.57mm |
| 0726 | 9 | N/A | N/A | 18 | 16/30 | .348"/8.84mm |
| 0730 | 25 | N/A | N/A | 18 | 16/30 | .541"/13.74mm |

Foil Shield

| Part Number | Conductor Count | Belden Equal | Carol/General Equal | AWG | Stranded Tinned Copper | Nominal O.D. |
|-------------|-----------------|--------------|---------------------|-----|------------------------|---------------|
| 0801 | 2 | N/A | N/A | 22 | 7/30 | .194"/4.93mm |
| 0811 | 2 | N/A | N/A | 20 | 7/28 | .210"/5.33mm |
| 0813 | 4 | N/A | N/A | 20 | 7/28 | .247"/6.27mm |
| 0821 | 2 | N/A | N/A | 18 | 16/30 | .224"/5.69mm |
| 0827 | 12 | N/A | N/A | 18 | 16/30 | .405"/10.29mm |
| 0831 | 2 | N/A | N/A | 16 | 19/.0117 | .248"/6.30mm |
| 0833 | 4 | N/A | N/A | 16 | 19/.0117 | .304"/7.72mm |
| 0835 | 7 | N/A | N/A | 16 | 19/.0117 | .365"/9.27mm |



**A design that is
60+% smaller than
the competition**

Cable Testing

What advances DataMax® to the next level earning the name “DataMax® Extreme?”

This section outlines the stringent testing, not required by any formal standard, yet routinely performed as part of Quabbin’s quality commitment. When you need a cable to be dependable in a harsh environment, we can provide you with confidence, peace of mind and test data that our cable is the best choice for the application.



Chemical tests being conducted to validate the resistance of the TPE (thermoplastic elastomer) cable jacket to chemicals commonly found in a heavy manufacturing environment such as cutting fluid, oil and robotic grease.



Torsion tests are performed on Quabbin 2 pair UTP industrial Ethernet cable and Quabbin 4 pair double shielded cable. This 34” test sample is subjected to a 360 degree twist per cycle (180° in each direction). Three million cycles are completed on each design with no apparent physical degradation and the cable continues to exceed electrical performance specifications.



CHEMICAL TESTING

Quabbin’s harsh environment cables find their way into many interesting applications such as military, wastewater treatment and energy exploration, just to name a few.

Historically, the most popular application for Industrial Ethernet has been on the factory floor — an environment also regarded as ‘harsh’ not only due to mechanical abuse but also because of chemical exposure. This knowledge has guided us to test cable capabilities beyond electrical and mechanical stress and evaluate performance and longevity when faced with chemicals and solvents.

The photo at left illustrates the chemical testing performed on our Industrial Ethernet cable. The tests include prolonged exposure to a battery of chemicals and the resultant effect on tensile, elongation, diameter and wall thickness as well as overall characteristic changes.

MECHANICAL TESTING

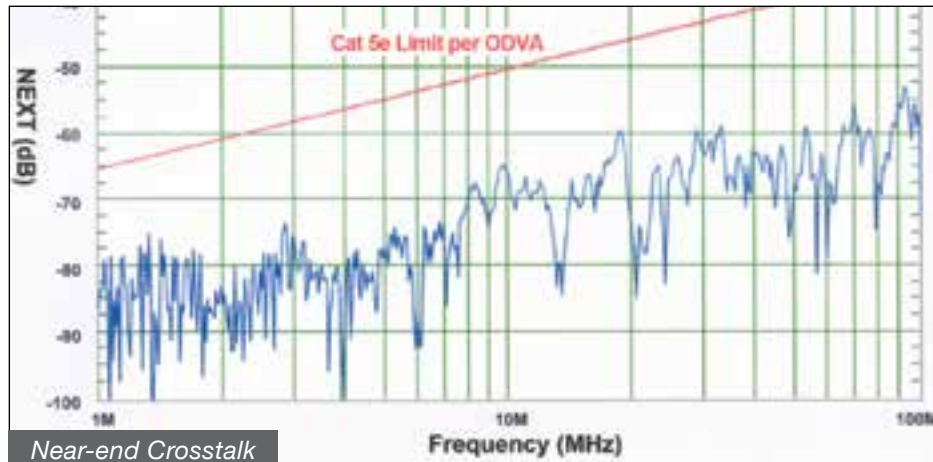
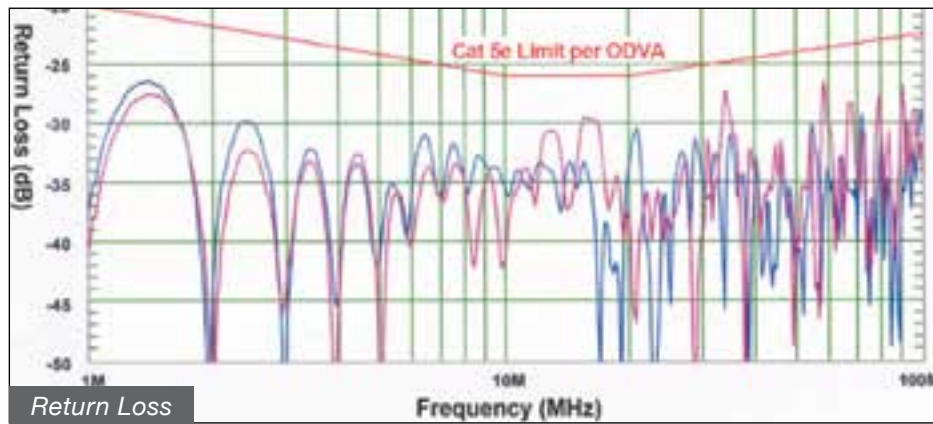
The purpose behind mechanical testing is to manipulate and work the cable in a manner that duplicates real world scenarios and determine if it will continue to perform at the required standards. If a cable is being used in a continuous movement application, it’s important that it be able to bend and flex repeatedly without compromising the integrity of the design.

Quabbin’s in-house testing facilities can replicate these movements and evaluate each cable to provide realistic information and data to extrapolate performance expectations in the field.

The image at left middle shows a ‘torsion tester’ which simulates a rotational stress comparable to what a cable would experience while controlling end of arm tooling. The image at left bottom shows a rolling bend ‘flex tester’ which simulates an unsupported bending motion, which is typical on a robotic arm.

Rolling bend flex tester showing a 4 pair, double shielded (foil & braid), DataMax® Extreme with ZHFR-PUR jacket being tested to 10 million cycles. Results were a cable with no physical damage that continued to surpass category 5e test parameters.

2-PAIR TPE CABLE



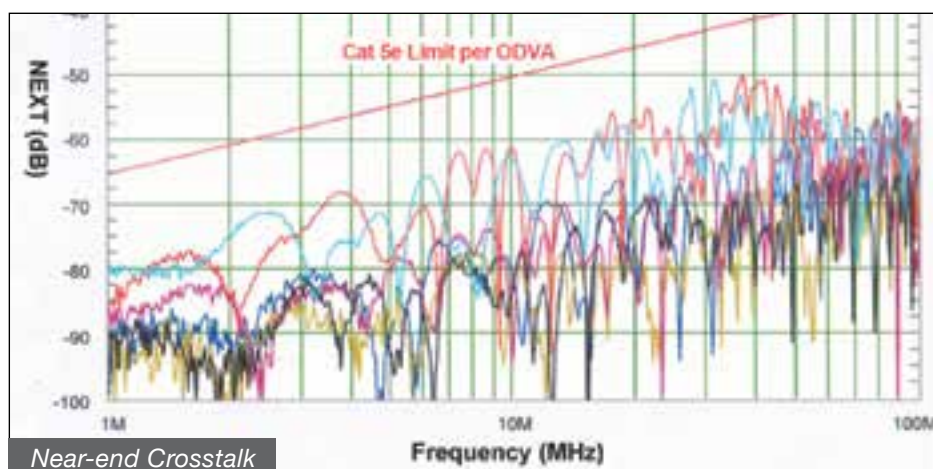
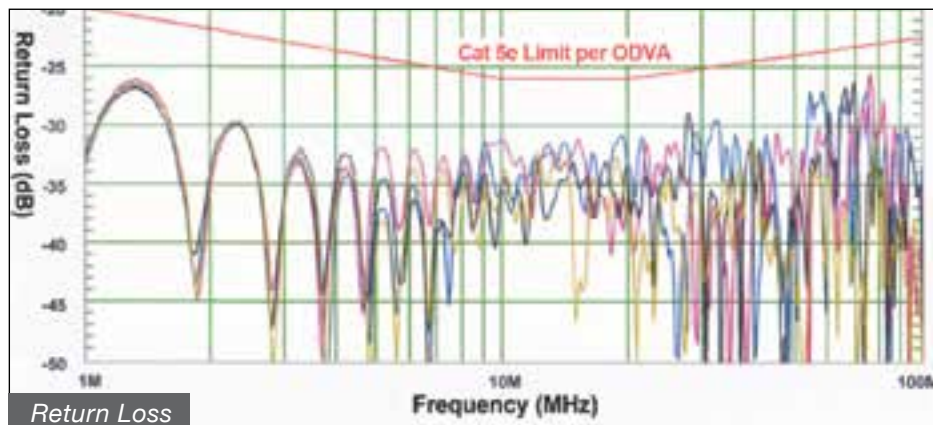
ELECTRICAL TESTING

Transmitting 10Base-T, 100Base-T, 1000Base-T or 10GBase-T signals over distances in an industrial application presents challenges in terms of both assembly and electrical performance.

The charts at left illustrate typical Return Loss and Near-end Crosstalk performance for DataMax® Extreme 2-pair and 4-pair, 24 AWG TPE jacketed cables. Note the significant performance headroom compared to Category 5e requirements. Industrial Grade PVC or Polyurethane jacketed DataMax® Extreme cables also exceed Category 5e limits.

Use DataMax® Extreme cable to ensure that your Industrial Ethernet cords comply with applicable requirements of the TIA 568.2-D commercial, TIA 1005-A, and ODVA industrial communication specifications.

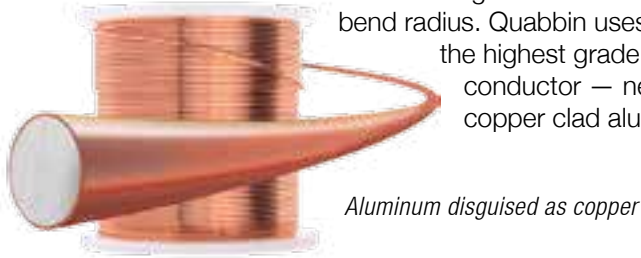
4-PAIR TPE CABLE



Copper Conductor Facts

Copper Clad Aluminum

One way to spot a subpar patch cord cable is by scraping the conductor. If the copper flakes off to expose a metal core, this means you have likely purchased aluminum disguised as copper. These cables degrade performance, are more fragile and have a lower bend radius. Quabbin uses only the highest grade copper conductor — never copper clad aluminum.



Tin vs. Bare Copper Conductors

While you shouldn't trust aluminum coated with copper, you should trust copper coated with tin — which is an essential step in protecting against oxidation and corrosion. Quabbin has long studied the benefits of plating copper conductors with tin vs. using bare copper alone, and we use this upgrade/enhancement extensively throughout our product line.



Aged Copper: Stranded vs. Solid

While other suppliers may have difficulty with aging cable in the field, Quabbin has avoided this issue by using tinned copper and other premium materials, as well as design and manufacturing processes continually refined for decades.

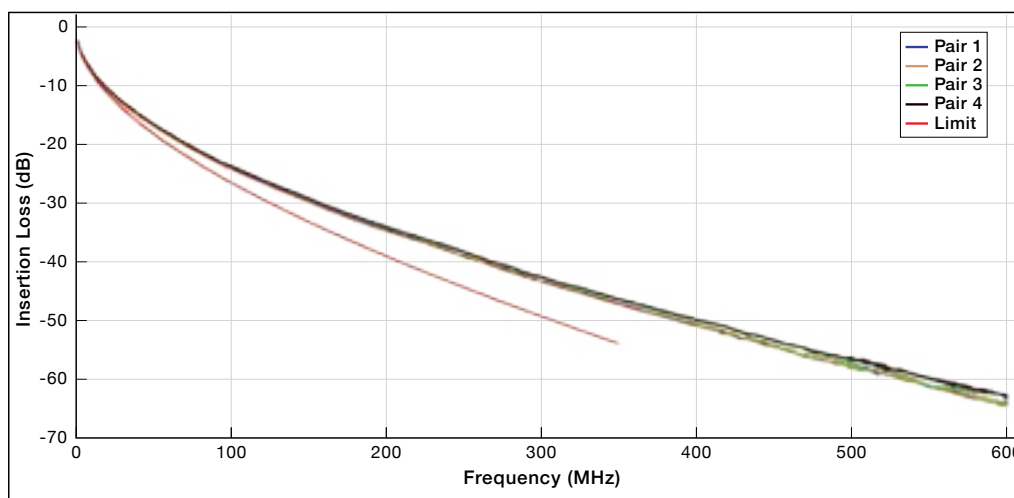
In October 2020 a member of the user community submitted a presentation at the Telecommunications Industry Association's TR-42.7 Copper Cabling Systems meeting recommending against the use of stranded copper. The member measured a solid and stranded cable

after an accelerated aging test (40°C, 90% RH, 2 Weeks). Data showed that a significant degradation in insertion loss due to aging can cause channels using stranded cable to fail.

Our engineering team located a Quabbin cable manufactured in May 1997, which was stored in temperatures ranging from 0°F to 90°F and unknown humidity levels. The 24 AWG 7/32 tinned copper 4-pair UTP cable was tested against the current TIA patch cord limits and passed. This cable was aged in a more realistic temperature environment and after

23 years still passed the TIA patch cord insertion loss limits. Test data is shown below.

Quabbin presented data that proved when using quality materials and processes, stranded copper cable will meet all TIA requirements and stand the test of time. As a result, the TIA decided against the ban on stranded cable. Our expertise in designing and manufacturing stranded data cable distinguishes us from our competitors.



The measured insertion loss of 23-year-old Quabbin stranded cable exceeds TIA standards.

Connectors for Harsh Environment Ethernet Cable

Contact us for suitable options from other connector manufacturers

| Quabbin Part # | Stewart RJ45 | Sentinel RJ45 | Telegaertner RJ45 (Straight) | Telegaertner RJ45 (Right Angle) | Telegaertner M12 D-Code |
|----------------|--------------|-----------------|------------------------------|---------------------------------|-------------------------|
| 5020-5022 | SS-39200-043 | 111-08080091L34 | J00026A2000/-A2001 | | |
| 5120-5122 | SS-39200-043 | 111-08080090L34 | J00026A2000/-A2001 | | |
| 5800-5802 | SS-39200-030 | 114S040800C34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5900-5902 | SS-39200-030 | 114S040800C34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5920 | | 114S040800C34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5921 | | | J00026A5001 | J00026A4001 | J80026A0201 |
| 5000-5016 | SS-39100-048 | 111-08080028L34 | J00026A2000/-A2001 | | |
| 5023-5025 | SS-39200-030 | 111S08080090C34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5089-5090 | SS-39200-030 | 111S08080090H34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5700-5716 | SS-39200-022 | 111-08080028L34 | J00026A2000/-A2001 | | |
| 5750-5752 | SS-39200-010 | 111-08080028L34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5770-5772 | SS-39200-011 | 111-08080028L34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5780-5782 | SS-37000-007 | 111-08080028L34 | J00026A2000/-A2001 | | |
| 5915-5916 | SS-39200-054 | 111-08080028L34 | J00026A2000/-A2001 | | |
| 5928-5929 | SS-39200-030 | 111S08080090C34 | J00026A2000/-A2001 | | |
| 5030-5032 | SS-39200-012 | 111S08080090L34 | J00026A2000/-A2001 | | |
| 5035-5037 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5040-5042 | SS-39200-012 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5055-5057 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5075-5077 | SS-39200-024 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5080-5082 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5083-5088 | SS-39200-010 | 111S08080028L34 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5085-5087 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5710-5712 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5725 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5730-5732 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5734-5736 | SS-39200-010 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5739-5741 | SS-39200-020 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5760-5762 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5931 | | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5062 | SS-39200-054 | 111S08080028L34 | J00026A2000/-A2001 | | |
| 5094 | | | J00026A5002 | J00026A4002 | J80026A0201 |
| 5099 | | 111S08080091H34 | J00026A5002 | J00026A4002 | J80026A0201 |
| 5923 | | 111S08080091H34 | J00026A5002 | J00026A4002 | J80026A0201 |
| 5924 | | 111S08080091H34 | J00026A5002 | J00026A4002 | J80026A0201 |
| 5925-5922 | | 111S08080095HA4 | J00026A5001 | J00026A4001 | J80026A0201 |
| 5919 | SS-39200-024 | 111S08080095LA4 | J00026A2000/-A2001 | | |
| 5026 | SS-39200-053 | 111S08080095HA4 | J00026A5001 | J00026A4001 | J80026A0201 |

This Ethernet connector cross reference resource is provided to help you in selecting compatible connectors for Quabbin's DataMax® Ethernet cable. While we are committed to updating any known changes, we are unable to guarantee that the information presented here is 100% up-to-date and accurate. We strongly encourage you to contact the connector manufacturer to ensure suitability.

| Quabbin Part # | Telegaertner M12 XC-Code | Harting Industrial RJ45 | Binder Industrial M12 | Binder Industrial RJ45 | Metz RJ45 |
|-------------------|-----------------------------|----------------------------|--------------------------|---------------------------|--------------|
| 5020-5022 | | 09 45 151 1560 | 99-3729-810-04 | 99-9687-810-08 | |
| 5120-5122 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-810-08 | 130E405032-E |
| 5800-5802 | J80026A0100 | 09 45 151 1560 | 99-3787-810-08 | 99-9687-810-08 | 130E405032-E |
| 5900-5902 | J80026A0100 | 09 45 151 1560 | 99-3729-810-04 | 99-9687-810-08 | |
| 5920 | J80026A0100 | 09 45 151 1560 | 99-3729-810-04 | 99-9687-810-08 | |
| 5921 | J80026A0100 | | 99-3787-810-08 | 99-9687-810-08 | 130E405032-E |
| 5000-5016 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5023-5025 | J80026A0100 | 09 45 151 1560 | 99-3729-810-04 | 99-9687-810-08 | |
| 5089-5090 | J80026A0100 | 09 45 151 1560 | 99-3787-810-08 | 99-9687-810-08 | 130E405032-E |
| 5700-5716 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5750-5752 | J80026A0100 | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5770-5772 | J80026A0100 | 09 45 151 1560 | 99-3729-810-04 | 99-9687-805-08 | |
| 5780-5782 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5915-5916 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5928-5929 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-810-08 | 130E405032-E |
| 5030-5032 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-810-08 | |
| 5035-5037 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5040-5042 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5055-5057 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5075-5077 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5080-5082 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5083-5088 | J80026A0100 | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5085-5087 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5710-5712 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5725 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5730-5732 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5734-5736 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5739-5741 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5760-5762 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5931 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5062 | | 09 45 151 1560 | 99-3727-810-04 | 99-9687-805-08 | |
| 5094 | J80026A0100 | | 99-3729-810-04 | | |
| 5099 | J80026A0100 | | 99-3729-810-04 | | |
| 5923 | J80026A0100 | | 99-3729-810-04 | | |
| 5924 | J80026A0100 | | 99-3729-810-04 | | |
| 5925-5922 | J80026A0100 | 09 45 151 1560 | 99-3787-810-08 | 99-9687-810-08 | 130E405032-E |
| 5919 | | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |
| 5026 | J80026A0100 | 09 45 151 1560 | 99-3787-810-08 | 99-9687-805-08 | 130E405032-E |

Quabbin: Making Single-Cable PoE for Harsh Environments an Easy Choice

The 2017 National Electric Code (NEC) imposes new requirements on cable running high power levels of the next-generation PoE standard. NEC recognizes the new UL LP listing. The 2017 NEC is focused on the overall bundling sizes of cable running high PoE power levels and applies only to permanently installed cable.

The NEC 2017 edition contains new requirements that address heat rise when power is greater than 60 W (Type 3) and includes ampacity tables, specifying the maximum ampacity allowed for a certain cable bundle size, conductor gauge and cable temperature rating installed in an ambient temperature of 30° C (86° F). Complying with these ampacity tables is required, however the use of an LP-certified cable as an alternative to following the ampacity table is allowed.

Bringing commercial solutions into a harsh environment will result in cable degradation, electrical failures and safety hazards.

Bringing commercial solutions into a harsh environment will result in cable degradation, electrical failures and safety hazards. Instead, consider a cable created specifically for the application — Quabbin's DataMax® Harsh Environment Cable.

Quabbin makes translation, selection, and design options clear and useful to the design engineer by providing guidance that already exists for long-standing commercial applications, test data and reports that support the functional abilities

of our cable, and our Product Matrix to facilitate cable selection specific to the application's primary constraints by reviewing the impact of temperature, DC resistance (DCR) and insertion loss.

THE QUABBIN PRODUCT MATRIX

| Popular Quabbin products (Part Numbers) | | 5030 5031 5032 | 5730 5731 5732 | 5023 5025 5027 5028 | 5750 5751 5752 5753 | 5094 5099 5924 | 5800 5801 5802 |
|--|--|----------------------|---------------------------------|------------------------------|---------------------------------|----------------------|---------------------------------|
| Cable specifications | Wire size (AWG) | 26 | 26 | 24 | 24 | 22 | 22 |
| | Pair count | 2 | 4 | 2 | 4 | 2/Quad | 4 |
| | Ambient temp. (°C) | 20 | 20 | 20 | 20 | 20 | 20 |
| | Cable temp. rating (°C) | 75 | 75 | 75 | 75 | 75 | 75 |
| | DCR (LOOP) per meter | 0.278 | 0.278 | 0.172 | 0.172 | 0.12 | 0.12 |
| | Max. distance (m) | 68 | 68 | 85 | 85 | 100 | 100 |
| Max. bundle size at 0.5 A per wire or 1 A per pair (Type 4) per NEC 2017 | | n/a (Note 4) | 91 | n/a (Note 4) | 91 | n/a (Note 4) | 192 |
| Voltage drop per meter | PoE IEEE 802.3at Type 1 (350 mA, 15.4 W) | 0.0973 | 0.0973 | 0.0602 | 0.0602 | 0.042 | 0.042 |
| | PoE + IEEE 802.3at Type 2 (600 mA, 30 W) | 0.1668 | 0.1668 | 0.1032 | 0.1032 | 0.072 | 0.072 |
| | 4PPoE 802.3bt Type 3 (600 mA per pair, 60 W) | 0.1668 | 0.1668 | 0.1032 | 0.1032 | 0.072 | 0.072 |
| | 802.3bt Type 4 (960 mA per pair, 100 W) | n/a (Note 4) | 0.26688 | n/a (Note 4) | 0.16512 | n/a (Note 4) | 0.1152 |
| Supported modes (Notes 1, 2, 3) | | Mode A | Mode A Mode B 4 pair mode | Mode A | Mode A Mode B 4 pair mode | Mode A | Mode A Mode B 4 pair mode |

Note 1: Mode A uses pair two (orange in Quabbin cable) and pair three (green) so it can be used with two pair cable.

Note 2: Mode B uses pair one (blue in Quabbin cable) and pair four (brown) so it cannot be used with two pair cable.

Note 3: Standards compliant devices will determine which mode can be used.

Note 4: Two pair cable cannot support Type 4 and therefore the bundle size is not restricted by the NEC.

NEW AMPACITY TABLE 725.144

Ampacities of each conductor (in amperes) in a 4-pair Class 2 or Class 3 data cables, based on copper conductors at ambient temperature of 30°C (86°F) with all conductors in all cables carrying current, 60°C (140°F), 75°C (167°F) and 90°C (194°F) rated cables.

| AWG | Number of 4-Pair Cables in a Bundle | | | | | | | | | | | | | | | | | | | | |
|-----|-------------------------------------|------|------|--------------------|------|------|--------------------|------|------|--------------------|------|------|--------------------|------|------|--------------------|------|------|--------------------|------|------|
| | 1 | | | 2-7 | | | 8-19 | | | 20-37 | | | 38-61 | | | 62-91 | | | 92-192 | | |
| | Temperature Rating | | | Temperature Rating | | | Temperature Rating | | | Temperature Rating | | | Temperature Rating | | | Temperature Rating | | | Temperature Rating | | |
| | 60°C | 75°C | 90°C | 60°C | 75°C | 90°C | 60°C | 75°C | 90°C | 60°C | 75°C | 90°C | 60°C | 75°C | 90°C | 60°C | 75°C | 90°C | 60°C | 75°C | 90°C |
| 26 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.7 | 0.8 | 1.0 | 0.5 | 0.6 | 0.7 | 0.4 | 0.5 | 0.6 | 0.4 | 0.5 | 0.6 | NA | NA | NA |
| 24 | 2.0 | 2.0 | 2.0 | 1.0 | 1.4 | 1.6 | 0.8 | 1.0 | 1.1 | 0.6 | 0.7 | 0.9 | 0.5 | 0.6 | 0.7 | 0.4 | 0.5 | 0.6 | 0.3 | 0.4 | 0.5 |
| 23 | 2.5 | 2.5 | 2.5 | 1.2 | 1.5 | 1.7 | 0.8 | 1.1 | 1.2 | 0.6 | 0.8 | 0.9 | 0.5 | 0.7 | 0.8 | 0.5 | 0.7 | 0.8 | 0.4 | 0.5 | 0.6 |
| 22 | 3.0 | 3.0 | 3.0 | 1.4 | 1.8 | 2.1 | 1.0 | 1.2 | 1.4 | 0.7 | 0.9 | 1.1 | 0.6 | 0.8 | 0.9 | 0.6 | 0.8 | 0.9 | 0.5 | 0.6 | 0.7 |

Note 1: For bundle sizes over 192 cables, or for conductor sizes smaller than 26 AWG, ampacities shall be permitted to be determined by qualified personnel under engineering supervision.

Note 2: Where only half of the conductors in each cable are carrying current, the values in the table shall be permitted to be increased by a factor of 1.4.

Informational Note: The conductor sizes in data cable in widespread use are typically 22-26 AWG.

Quabbin Website Tools



Cable Finder

Search our products:

- Application
- Construction
- Physical Properties
- Category
- Part Number
- Ratings & Approvals

www.quabbin.com/cable-finder

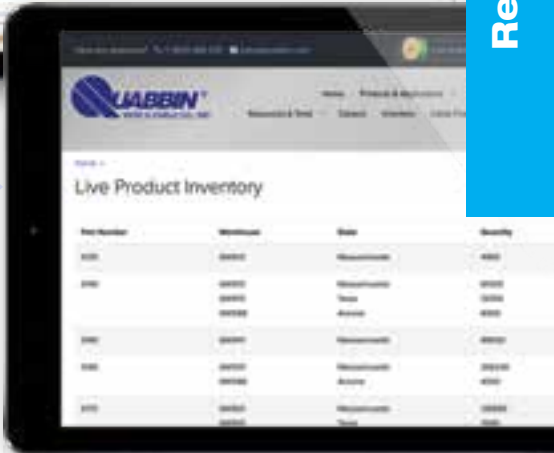


Inventory Finder

Check our inventory:

- Part Number
- Quantity Available
- Warehouse Location

www.quabbin.com/inventory



Sales and Customer Service

Inventory Stocked Throughout USA

- Eliminates overseas shipping times and costly delays
- Locations from coast to coast (MA, AZ, FL, CA, TX)

Easy Ordering & Shipping

- Sales representatives located throughout North America
- Sales support specialists available to answer questions and process orders
- Orders for in-stock items placed by 1 p.m. Eastern Time qualify for same day shipping

GLOBAL AND REGIONAL SALES MANAGERS



Ted Brunk



Dean Hart



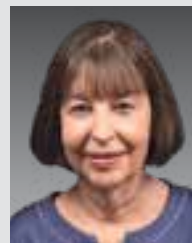
Steve Spoons



Jason Sterndale



Ron Cooney



Martha Parker



Kerry Wells

SALES SUPPORT



Cable Finder

Search our products:

- Application
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- Part Number
- Physical Properties
- Construction
- Category

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Inventory Finder

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CONTACT QUABBIN

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