

DataMax Extreme™



Orion Wire Company, Inc. has partnered with Quabbin Wire & Cable Co., Inc., the industry leading manufacturer of Industrial Ethernet Cables, to provide our customers with solutions for connecting their equipment in harsh environments.

The *DataMax Extreme™* line of Industrial Ethernet Cables are designed to withstand mechanical abuse such as vibration, crushing, and impact well beyond the levels typically found in a commercial office setting while maintaining electrical performance above the requirements of TIA/EIA 568-B for Category 5e cables.



Available in 2-pair and 4-pair configurations, *DataMax Extreme™* cables are ideal for 10Base-T or 100Base-T applications. The cable jackets are specifically designed for harsh environments and offer superior cut-through, tear, and abrasion resistance as well as excellent resistance to weathering, moisture and many industrial fluids.

Cable Design Benefits

- ◆ Pressure extruded jacket binds core in place providing a higher level of crush resistance while retaining flexibility and superior flex life
- ◆ Wider functional temperature range of up to -40C to 75C including improved low temperature flexibility performance
- ◆ Excellent resistance to weathering when compared to pre-RoHS materials
- ◆ Enhanced resistance to humidity and moisture elongation
- ◆ Outstanding tear resistance combined with reduced susceptibility to abrasion
- ◆ Far superior oil resistance based on ASTM Fuel A & B submersion analysis
- ◆ Tensile strength of up to ~ 4000 psi (compared to 2500 psi for PVC)
 - >1-week air oven @ 121C ~ 3200 psi
 - >1-week air oven @ 140C ~ 2000 psi

Cable Applications

Communication Networks in production and severe duty areas with applications including:

- ◆ Industrial computing
- ◆ Data collection
- ◆ Factory automation/communications
- ◆ Airports
- ◆ Automotive assembly
- ◆ Billboards (environmentally harsh)
- ◆ Casinos
- ◆ Fast Food
- ◆ Food processing
- ◆ Foundries
- ◆ Grocery
- ◆ Paper mills
- ◆ Stadiums
- ◆ Theme parks
- ◆ Warehouses
- ◆ Refineries
- ◆ Mining
- ◆ and many others...



All *DataMax Extreme™* cables can be terminated with high performance modular plugs or cylindrical metal M12 connectors. The sealed 4-pin M12 connector, used for years in industrial control systems has been adopted for Ethernet transmission.

Through special processing, *DataMax Extreme™* cables maintain their shape and dimensions, allowing for the replacement of connectors in the field while retaining the jacket integrity for proper boot sealing.



Contact us for more information regarding the suitability of the *DataMax Extreme™* cables for your application.

| Part Number | Description | Insulation Thickness Inch / mm | Jacket Thickness Inch / mm | Nominal Diameter Inch / mm | 1 kft / 305 mtr Ship Weight lbs / kg |
|-------------|--|-----------------------------------|-------------------------------|-------------------------------|--|
| DME-5000 | 2 Pair / 24 AWG Stranded UTP TPU Jacket - Black | .007 / .180 | .020 / .510 | .220 / 5.59 | 17.0 / 7.7 |
| DME-5006 | 2 Pair / 24 AWG Stranded UTP TPU Jacket - Blue | .007 / .180 | .020 / .510 | .220 / 5.59 | 17.0 / 7.7 |
| DME-5016 | 2 Pair / 24 AWG Stranded UTP TPU Jacket - Teal | .007 / .180 | .020 / .510 | .220 / 5.59 | 17.0 / 7.7 |
| DME-5700 | 4 Pair / 24 AWG Stranded UTP TPU Jacket - Black | .007 / .180 | .020 / .510 | .220 / 5.59 | 24.0 / 10.9 |
| DME-5706 | 4 Pair / 24 AWG Stranded UTP TPU Jacket - Blue | .007 / .180 | .020 / .510 | .220 / 5.59 | 24.0 / 10.9 |
| DME-5716 | 4 Pair / 24 AWG Stranded UTP TPU Jacket - Teal | .007 / .180 | .020 / .510 | .220 / 5.59 | 24.0 / 10.9 |
| DME-5020 | 2 Pair / 22 AWG Stranded UTP TPU Jacket - Black | .009 / .229 | .024 / .610 | .245 / 6.22 | 33.6 / 15.2 |
| DME-5021 | 2 Pair / 22 AWG Stranded UTP TPU Jacket - Blue | .009 / .229 | .024 / .610 | .245 / 6.22 | 33.6 / 15.2 |
| DME-5022 | 2 Pair / 22 AWG Stranded UTP TPU Jacket - Teal | .009 / .229 | .024 / .610 | .245 / 6.22 | 33.6 / 15.2 |
| DME-5120 | 4 Pair / 22 AWG Stranded UTP TPU Jacket - Black | .009 / .229 | .024 / .610 | .245 / 6.22 | 48.9 / 22.2 |
| DME-5121 | 4 Pair / 22 AWG Stranded UTP TPU Jacket - Blue | .009 / .229 | .024 / .610 | .245 / 6.22 | 48.9 / 22.2 |
| DME-5122 | 4 Pair / 22 AWG Stranded UTP TPU Jacket - Teal | .009 / .229 | .024 / .610 | .245 / 6.22 | 48.9 / 22.2 |
| DME-5710 | 4 Pair / 26 AWG Stranded ScTP TPU Jacket - Black | .010 / .254 | .022 / .559 | .220 / 5.59 | 22.5 / 10.2 |
| DME-5711 | 4 Pair / 26 AWG Stranded ScTP TPU Jacket - Blue | .010 / .254 | .022 / .559 | .220 / 5.59 | 22.5 / 10.2 |
| DME-5712 | 4 Pair / 26 AWG Stranded ScTP TPU Jacket - Teal | .010 / .254 | .022 / .559 | .220 / 5.59 | 22.5 / 10.2 |
| DME-5730 | 4 Pair / 26 AWG Stranded ScTP w/Braid TPU Jacket - Black | .010 / .254 | .022 / .559 | .220 / 5.59 | 35.0 / 15.9 |
| DME-5731 | 4 Pair / 26 AWG Stranded ScTP w/Braid TPU Jacket - Blue | .010 / .254 | .022 / .559 | .220 / 5.59 | 35.0 / 15.9 |
| DME-5732 | 4 Pair / 26 AWG Stranded ScTP w/Braid TPU Jacket - Teal | .010 / .254 | .022 / .559 | .220 / 5.59 | 35.0 / 15.9 |
| DME-5770 | 2 Pair / 24 AWG Stranded UTP TPE Jacket - Black | .007 / .180 | .020 / .510 | .220 / 5.59 | 16.2 / 7.3 |
| DME-5771 | 2 Pair / 24 AWG Stranded UTP TPE Jacket - Blue | .007 / .180 | .020 / .510 | .220 / 5.59 | 16.2 / 7.3 |
| DME-5772 | 2 Pair / 24 AWG Stranded UTP TPE Jacket - Teal | .007 / .180 | .020 / .510 | .220 / 5.59 | 16.2 / 7.3 |
| DME-5750 | 4 Pair / 24 AWG Stranded UTP TPE Jacket - Black | .007 / .180 | .020 / .510 | .220 / 5.59 | 22.6 / 10.3 |
| DME-5751 | 4 Pair / 24 AWG Stranded UTP TPE Jacket - Blue | .007 / .180 | .020 / .510 | .220 / 5.59 | 22.6 / 10.3 |
| DME-5752 | 4 Pair / 24 AWG Stranded UTP TPE Jacket - Teal | .007 / .180 | .020 / .510 | .220 / 5.59 | 22.6 / 10.3 |
| DME-5900 | 2 Pair / 22 AWG Stranded UTP TPE Jacket - Black | .009 / .229 | .024 / .610 | .245 / 6.22 | 21.7 / 9.8 |
| DME-5901 | 2 Pair / 22 AWG Stranded UTP TPE Jacket - Blue | .009 / .229 | .024 / .610 | .245 / 6.22 | 21.7 / 9.8 |
| DME-5902 | 2 Pair / 22 AWG Stranded UTP TPE Jacket - Teal | .009 / .229 | .024 / .610 | .245 / 6.22 | 21.7 / 9.8 |
| DME-5800 | 4 Pair / 22 AWG Stranded UTP TPE Jacket - Black | .009 / .229 | .024 / .610 | .245 / 6.22 | 29.7 / 13.5 |
| DME-5801 | 4 Pair / 22 AWG Stranded UTP TPE Jacket - Blue | .009 / .229 | .024 / .610 | .245 / 6.22 | 29.7 / 13.5 |
| DME-5802 | 4 Pair / 22 AWG Stranded UTP TPE Jacket - Teal | .009 / .229 | .024 / .610 | .245 / 6.22 | 29.7 / 13.5 |

Conductors

22 AWG 7/30 Tinned Copper
24 AWG 7/32 Tinned Copper
26 AWG 7/34 Tinned Copper

Color Code - 2 Pair Cables

Pair 1: White/Blue x Blue
Pair 2: White/Orange x Orange

Color Code - 4 Pair Cables

Pair 1: White/Blue x Blue
Pair 2: White/Orange x Orange
Pair 3: White/Green x Green
Pair 4: White/Brown x Brown

Mutual Capacitance

13.5 pF/FT nom
44.3 pF/meter nom

Impedance:
100 ± 15 Ohms

IP-67 Cord Rating

When used w/proper connectors.

Temperature
-40°C to +75°C

