

EcoGen™ Wire and Cable



Table of Contents

EcoCable® 600 V Control Cable	4
EcoCable Mini 300 V Communication Cable	13
EcoFlex® 600 V Continuous Flex Control Cable	26
EcoFlex PUR 600 V Continuous Flex Cable, Polyurethane Jacket	35
EcoWire® 600 V Wire	42
EcoWire Plus 300 V Wire	42
Conductor Color Coding	43

EcoGen™ Wire and Cable

Better Performance In a Smaller Package

Alpha's EcoGen family of wire and cable combines better performance with minimum environmental impact. Each member of the EcoGen family derives its advantages from modified polyphenylene ether (mPPE) jacketing and insulation. EcoGen is:

- **Zero Halogen**
- **Capable of handling temperatures extremes to -50°C**
- **Compared to PVC counterparts, EcoGen wire and cable is:**
 - **Up to 47% smaller**
 - **Up to 65% lighter**
 - **Up to 87% lower outgassing**

Environmentally Friendly

EcoGen products contain no halogens, phthalates, or heavy metals. The mPPE thermoplastic insulation and jacketing can be easily recycled. They meet RoHS and WEEE requirements for the elimination of hazardous substances and recyclability.

Low Specific Gravity

The 1.03 specific gravity of mPPE is 25% to 40% lower than other insulation materials, such as PVC, polyethylene, and cross-linked polyethylene. Along with the reduced wall thickness, the low specific gravity yields significant weight savings of up to 65% with EcoCable.

Better Dielectric Strength

The superior dielectric properties of mPPE make a reduced wall thickness possible, while maintaining the same electrical properties as a thicker PVC control cable.

More Choice in EMI Protection

Alpha Wire offers EcoGen cables in three shielding options to handle any electrical environment.

- **Unshielded**
- **Foil Shielded**
- **SupraShield® Foil + Braid Shield**

The EcoGen Portfolio

EcoCable® Control Cable

Recyclable 600 V control cable that's up to 47% smaller and 65% lighter than PVC

EcoCable Mini Cable

Recyclable 300 V cable that's up to 32% smaller and 44% lighter than PVC, and halogen free

EcoFlex® Cable

Fully recyclable compact cable that's up to 32% smaller and 55% lighter than PVC—for moderate flex applications

EcoFlex® PUR Cable

Provides abrasion, UV, and oil resistance of a tough halogen free polyurethane jacket in a flex cable that's up to 40% smaller and 44% lighter than other 600 V continuous flex cables

EcoWire® Hook-Up Wire

Smaller, lighter, halogen-free replacement for PVC-insulated wire

EcoWire® Plus Hook-Up Wire

Provides all of the environmental benefits and abrasion-resistance characteristics of standard EcoWire, plus additional fluid resistance for demanding factory applications



Alpha Wire's next generation of eco-friendly, high-performance wire and cable, designed to provide better performance in a smaller package.

- EcoCable®
- EcoWire®
- EcoFlex® Cable
- EcoWire® Plus
- EcoCable® Mini
- EcoFlex® PUR

Learn more about the EcoGen family of products at
www.alphawire.com/EcoGen

EcoCable®

600 V Control Cable



A fully recyclable 600 V control cable that's up to 47% smaller and 65% lighter than PVC. More than 150 standard EcoCable constructions are available to meet your performance needs.

- Up to 47% smaller and 65% lighter than PVC
- Exceptional EMI protection with Supra-Shield® foil + braid
- 87% lower outgassing
- 28 - 14 AWG
- 100% recyclable mPPE insulation and jacketing
- Contains no halogens, phthalates, or heavy metals

Conductors: Stranded tinned copper

Insulation: mPPE

Jacket: mPPE, slate

Shielding: Unshielded, foil shield, Supra-Shield foil + braid

Voltage: 600 V

Bend Radius: 6x

Temperature Range: -50°C to + 105°C

Configurations

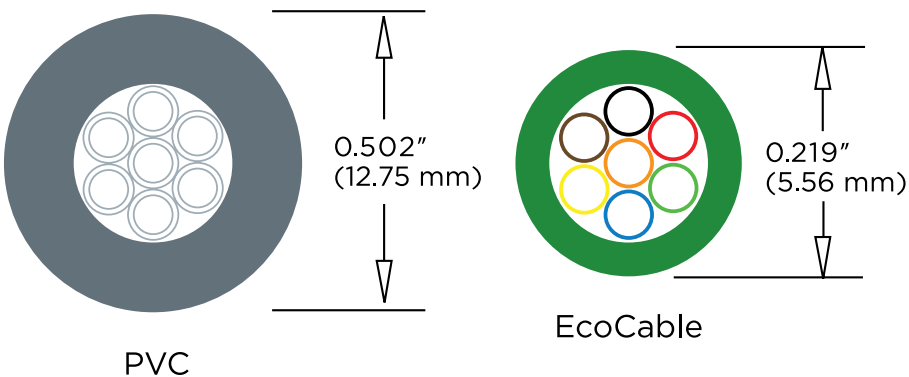
- Unshielded multiconductor
- Foil Shielded multiconductor
- Supra-Shield foil + braid shielded multiconductor
- Custom and composite configurations available



Approvals

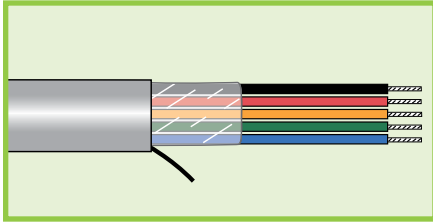
- UL AWM 21915 (600 V, 105°C)
- CE
- CSA AWM I/II A/B FT1
- IEC 60332-2 Flame Behavior
- RoHS
- REACH
- WEEE
- Suitable for use in NFPA 79 applications
- ISO 10993-5

22 AWG (0.35 mm²) Cable



EcoCable®

600 V Unshielded, Multiconductor



UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.89 mm²)

Stranding: 7/36 (0.127 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77052	2	0.138	3.51
77053	3	0.144	3.66
77054	4	0.153	3.89
77055	6	0.174	4.42

26 AWG (0.14 mm²)

Stranding: 7/34 (0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

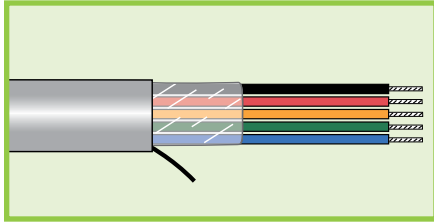
Part Number	Conductors	Nominal Diameter	
		Inch	mm
77047	2	0.146	3.71
77048	3	0.152	3.86
77049	4	0.162	4.11
77050	6	0.186	4.72
77051	8	0.198	5.03

24 AWG (0.28 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77001	2	0.156	3.96
77002	4	0.175	4.44
77003	5	0.188	4.78
77004	7	0.201	5.11
77005	9	0.229	5.82
77006	19	0.288	7.32





UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77007	2	0.168	4.27
77008	4	0.189	4.80
77009	5	0.204	5.18
77010	7	0.219	5.56
77011	9	0.251	6.38
77012	19	0.318	8.08

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77013	3	0.193	4.90
77014	4	0.209	5.31
77015	9	0.280	7.11
77016	12	0.309	7.85
77017	15	0.336	8.53
77018	19	0.358	9.09
77019	25	0.416	10.57

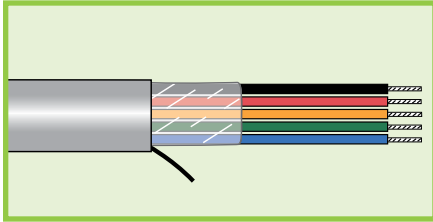
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77020	2	0.202	5.13
77021	3	0.213	5.41
77022	4	0.230	5.84
77023	5	0.250	6.35
77024	7	0.271	6.88
77025	9	0.313	7.95
77026	12	0.346	8.79
77027	15	0.377	9.58
77028	19	0.404	10.26
77029	25	0.470	11.94

EcoCable®

600 V Unshielded, Multiconductor



UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.297 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

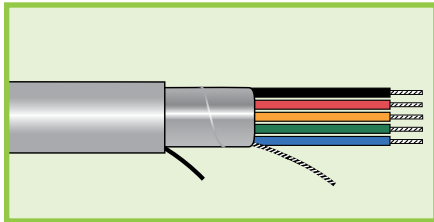
Part Number	Conductors	Nominal Diameter	
		Inch	mm
77030	4	0.259	6.58
77031	5	0.283	7.19
77032	7	0.307	7.80
77033	9	0.357	9.07
77034	12	0.396	10.06
77035	15	0.433	11.00
77036	19	0.464	11.79
77037	25	0.542	13.77

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77038	2	0.260	6.60
77039	3	0.275	6.98
77040	4	0.301	7.65
77041	5	0.329	8.36
77042	7	0.358	9.09
77043	9	0.419	10.64
77044	12	0.467	11.86
77045	15	0.511	12.98
77046	25	0.644	16.36





UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- Aluminum/polyester tape, 25% overlap, foil facing inward
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.89 mm²)

Stranding: 7/36 (0.13 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77152	2	0.142	3.61
77153	3	0.148	3.76
77154	4	0.157	3.99
77155	6	0.178	4.52

26 AWG (0.14 mm²)

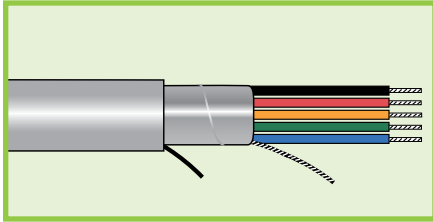
Stranding: 7/34 (0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77147	2	0.150	3.81
77148	3	0.156	3.96
77149	4	0.166	4.22
77150	6	0.190	4.83
77151	8	0.202	5.13

24 AWG (0.28 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77102	2	0.160	4.06
77103	3	0.167	4.24
77104	4	0.179	4.55
77105	5	0.192	4.88
77106	7	0.205	5.21
77107	9	0.233	5.92
77101	12	0.255	6.48



UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)

1000 ft (305 m)

Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)

Insulation thickness: 0.010 (0.25 mm)

Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77109	2	0.172	4.37
77110	3	0.180	4.57
77111	4	0.193	4.90
77112	5	0.208	5.28
77113	7	0.223	5.66
77114	9	0.255	6.48
77108	12	0.280	7.11

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)

Insulation thickness: 0.010 (0.25 mm)

Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77116	3	0.197	5.00
77117	4	0.213	5.41
77118	5	0.230	5.84
77119	7	0.247	6.27
77120	9	0.284	7.21
77115	12	0.313	7.95

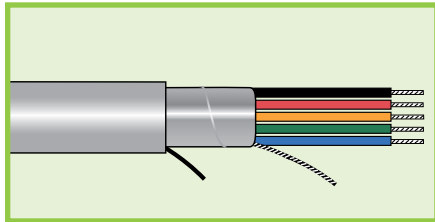
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)

Insulation thickness: 0.010 (0.25 mm)

Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77124	2	0.206	5.23
77126	3	0.217	5.51
77127	4	0.234	5.94
77128	5	0.254	6.45
77129	7	0.275	6.98
77130	9	0.317	8.05
77121	12	0.350	8.89
77122	15	0.381	9.68
77123	19	0.408	10.36
77125	25	0.474	12.04



UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- Aluminum/polyester tape, 25% overlap, foil facing inward
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

16 AWG (1.32 mm²)

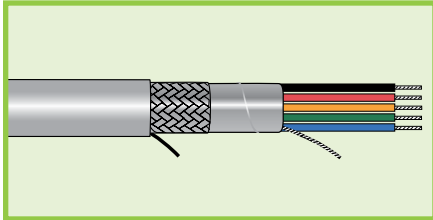
Stranding: 19/0.0117 (19 x 0.297 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77133	2	0.230	5.84
77134	3	0.242	6.15
77135	4	0.263	6.68
77136	5	0.287	7.29
77137	7	0.311	7.90
77138	9	0.361	9.17
77131	12	0.400	10.16
77132	15	0.437	11.10

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77141	2	0.264	6.71
77142	3	0.279	7.09
77143	4	0.305	7.75
77144	5	0.333	8.46
77145	7	0.362	9.19
77146	9	0.423	10.74
77139	12	0.471	11.96
77140	15	0.515	13.08



UL AWM 21915
CSA AWM I/II A/B FT2

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

26 AWG (0.14 mm²)

Stranding: 7/34 (0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77247	2	0.174	4.42
77248	3	0.180	4.57
77249	4	0.190	4.83
77250	6	0.214	5.44
77251	8	0.226	5.74

24 AWG (0.28 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77201	4	0.203	5.16
77202	7	0.229	5.82
77203	12	0.279	7.09

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

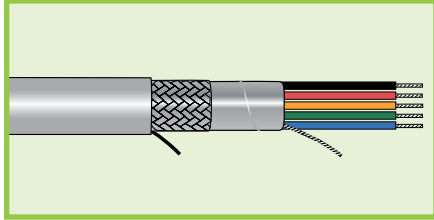
Part Number	Conductors	Nominal Diameter	
		Inch	mm
77204	4	0.217	5.51
77205	7	0.247	6.27
77206	12	0.304	7.72

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77207	4	0.237	6.02
77208	5	0.254	6.45
77209	7	0.271	6.88
77210	9	0.308	7.82
77211	12	0.337	8.56
77212	19	0.386	9.80





**UL AWM 21915
CSA AWM I/II A/B FT2**

Operating Temperature

-50°C to 105°C

Conductor Color Coding

- Chart E

Materials

- Stranded tin-plated copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77213	2	0.230	5.84
77214	3	0.241	6.12
77215	4	0.258	6.55
77216	5	0.278	7.06
77217	7	0.299	7.59
77218	9	0.341	8.66
77219	12	0.374	9.50
77220	15	0.405	10.29
77221	19	0.432	10.97

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.297 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77222	2	0.254	6.45
77223	3	0.266	6.76
77224	4	0.287	7.29
77225	5	0.311	7.90
77226	7	0.335	8.51
77227	9	0.385	9.78
77228	12	0.424	10.77
77229	15	0.461	11.71
77230	19	0.492	12.50

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77231	2	0.288	7.32
77232	3	0.303	7.70
77233	4	0.329	8.36
77234	7	0.386	9.80
77235	9	0.447	11.35
77236	12	0.495	12.57
77237	15	0.539	13.69
77238	25	0.678	17.22



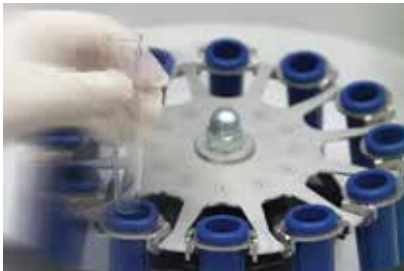
EcoCable® Mini

300 V Communication Cable



Small Just Got Mini. EcoCable Mini recyclable cable was developed in response to our customers' need for a smaller, lighter 300 V cable.

- Up to 32% smaller than PVC
- Up to 44% lighter than PVC
- 92% lower outgassing than PVC
- 100% recyclable mPPE insulation and jacketing
- Contains no halogens, phthalates, or heavy metals



Conductors: Stranded tinned copper

Insulation: mPPE

Jacket: mPPE

Shielding: Foil or foil + braid

Voltage: 300 V

Temperature Range: -40°C to + 80°C

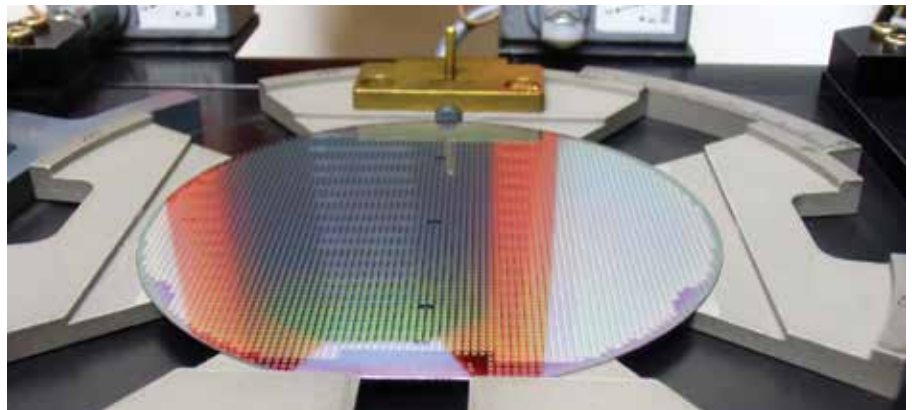
Configurations

- Multiconductor or multipair
- Unshielded
- Overall foil shielded
- Individually shielded pairs + overall foil shield
- Supra-Shield® Foil + Braid
- Custom and composite configurations available



Approvals

- UL AWM 21460
- UL VW-1
- CSA I A/B FT1
- CE
- RoHS
- REACH
- WEEE
- Suitable for use in NFPA 79 applications
- ISO 10993-5

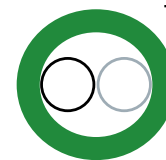
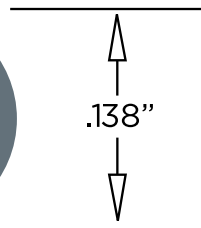


Order free samples at www.alphawire.com/ecogen or call 1-800-52-ALPHA

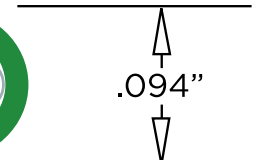
28 AWG, 2 Conductor Unshielded Cable



PVC

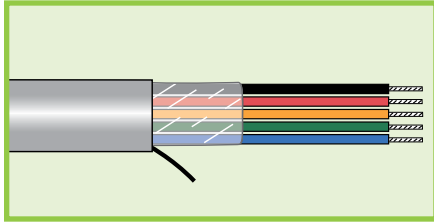


EcoCable Mini



EcoCable® Mini

300 V Unshielded, Multiconductor



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart E (Chart D for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78002	2	0.094	2.39
78003	3	0.099	2.51
78004	4	0.107	2.72
78006	6	0.124	3.15
78008	8	0.134	3.40

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78012	2	0.102	2.59
78013	3	0.107	2.72
78014	4	0.116	2.95
78016	6	0.136	3.45
78018	8	0.147	3.73
78020	10	0.170	4.32
78021	15	0.190	4.83

24 AWG (0.241 mm²)

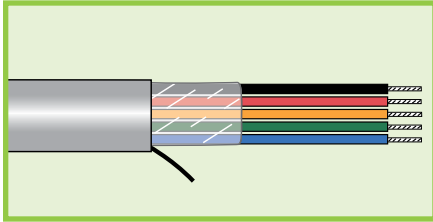
Stranding: 19/36 (19 x 0.127 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78022	2	0.112	2.84
78023	3	0.118	3.00
78024	4	0.128	3.25
78026	6	0.152	3.86
78028	8	0.164	4.17
78030	10	0.190	4.83
78031	15	0.213	5.41
78403	20	0.238	6.05
78433	25	0.268	6.81



EcoCable® Mini

300 V Unshielded, Multiconductor



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart E (Chart D for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78032	2	0.126	3.20
78033	3	0.133	3.38
78034	4	0.145	3.68
78036	6	0.173	4.39
78038	8	0.187	4.75
78040	10	0.218	5.54
78041	15	0.245	6.22
78404	20	0.275	6.98
78434	25	0.310	7.87

20 AWG (0.616 mm²)

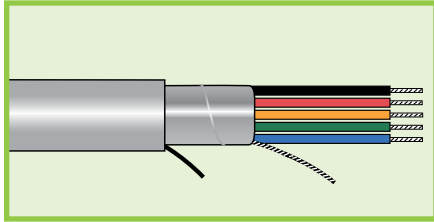
Stranding: 19/32 (19 x 0.203 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78042	2	0.142	3.61
78043	3	0.150	3.81
78044	4	0.165	4.19
78046	6	0.197	5.00
78048	8	0.214	5.44
78050	10	0.250	6.35
78055	15	0.282	7.16
78405	20	0.317	8.05
78435	25	0.358	9.09



EcoCable® Mini

300 V Foil Shield, Multiconductor



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart E (Chart D for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Aluminum/polyester tape, 25% overlap, foil facing inward
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78102	2	0.098	2.49
78103	3	0.103	2.62
78104	4	0.111	2.82
78106	6	0.128	3.25
78108	8	0.138	3.51

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78112	2	0.106	2.69
78113	3	0.111	2.82
78114	4	0.12	3.05
78116	6	0.14	3.56
78118	8	0.151	3.84
78120	10	0.174	4.42
78121	15	0.194	4.93

24 AWG (0.241 mm²)

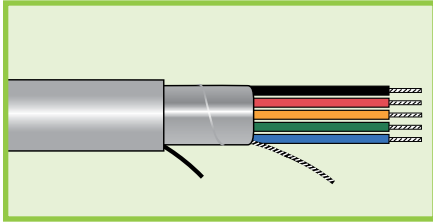
Stranding: 19/36 (19 x 0.127 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78122	2	0.116	2.95
78123	3	0.122	3.10
78124	4	0.132	3.35
78126	6	0.156	3.96
78128	8	0.168	4.27
78130	10	0.194	4.93
78131	15	0.217	5.51
78413	20	0.242	6.15
78443	25	0.272	6.91



EcoCable® Mini

300 V Foil Shield, Multiconductor



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart E (Chart D for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Aluminum/polyester tape, 25% overlap, foil facing inward
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78132	2	0.130	3.30
78133	3	0.137	3.48
78134	4	0.149	3.78
78136	6	0.177	4.50
78138	8	0.191	4.85
78140	10	0.222	5.64
78141	15	0.249	6.32
78414	20	0.279	7.09
78444	25	0.314	7.98

20 AWG (0.616 mm²)

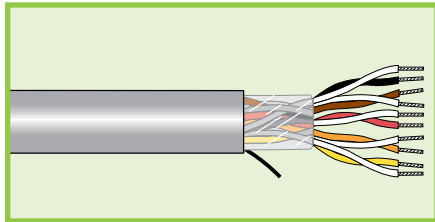
Stranding: 19/32 (19 x 0.203 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78142	2	0.146	3.71
78143	3	0.154	3.91
78144	4	0.169	4.29
78146	6	0.201	5.11
78148	8	0.218	5.54
78150	10	0.254	6.45
78155	15	0.286	7.26
78415	20	0.321	8.15
78445	25	0.362	9.19



EcoCable® Mini

300 V Unshielded, Multipair



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart B (Chart A for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
1000 ft (305 m)
Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
Insulation thickness: 0.007 (0.18 mm)
Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78052	2	0.132	3.35
78053	3	0.140	3.56
78054	4	0.153	3.89
78005	5	0.167	4.24
78056	6	0.182	4.62
78058	8	0.198	5.03
78009	9	0.213	5.41

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
Insulation thickness: 0.007 (0.18 mm)
Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78062	2	0.146	3.71
78063	3	0.154	3.91
78064	4	0.169	4.29
78015	5	0.185	4.70
78066	6	0.202	5.13
78068	8	0.219	5.56
78019	9	0.237	6.02

24 AWG (0.241 mm²)

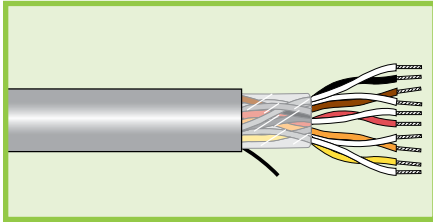
Stranding: 19/36 (19 x 0.127 mm)
Insulation thickness: 0.007 (0.18 mm)
Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78072	2	0.162	4.11
78073	3	0.172	4.37
78074	4	0.189	4.80
78025	5	0.207	5.26
78076	6	0.227	5.77
78078	8	0.247	6.27
78029	9	0.267	6.78
78408	20	0.369	9.37
78438	25	0.418	10.62



EcoCable® Mini

300 V Unshielded, Multipair



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart B (Chart A for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78082	2	0.185	4.70
78083	3	0.197	5.00
78084	4	0.217	5.51
78035	5	0.239	6.07
78086	6	0.261	6.63
78088	8	0.285	7.24
78039	9	0.309	7.85
78409	20	0.429	10.90
78439	25	0.487	12.37

20 AWG (0.616 mm²)

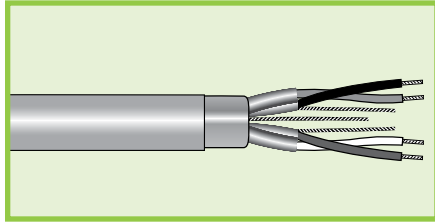
Stranding: 19/32 (19 x 0.203 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78092	2	0.211	5.36
78093	3	0.225	5.72
78094	4	0.248	6.30
78045	5	0.274	6.96
78096	6	0.301	7.65
78098	8	0.328	8.33
78049	9	0.356	9.04
78410	20	0.498	12.65
78440	25	0.565	14.35



EcoCable® Mini

300 V Overall Foil Shield and Individually Shielded Pairs, Multipair



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart B (Chart A for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Aluminum/polyester tape shield, 25% overlap, foil facing inward
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)

1000 ft (305 m)

Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
Insulation thickness: 0.007 (0.18 mm)
Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78202	2	0.153	3.89
78213	3	0.162	4.11
78204	4	0.177	4.50
78205	5	0.194	4.93
78206	6	0.211	5.36
78208	8	0.229	5.82
78209	9	0.247	6.27

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
Insulation thickness: 0.007 (0.18 mm)
Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78212	2	0.167	4.24
78223	3	0.177	4.50
78214	4	0.194	4.93
78215	5	0.213	5.41
78216	6	0.232	5.89
78218	8	0.252	6.40
78219	9	0.273	6.93

24 AWG (0.241 mm²)

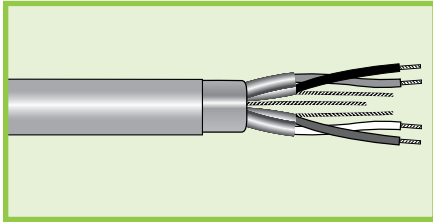
Stranding: 19/36 (19 x 0.127 mm)
Insulation thickness: 0.007 (0.18 mm)
Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78222	2	0.185	4.70
78233	3	0.196	4.98
78224	4	0.215	5.46
78225	5	0.237	6.02
78226	6	0.259	6.58
78228	8	0.282	7.16
78229	9	0.305	7.75



EcoCable® Mini

300 V Overall Foil Shield and Individually Shielded Pairs, Multipair



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart B (Chart A for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Aluminum/polyester tape shield, 25% overlap, foil facing inward
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

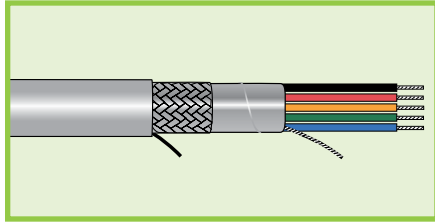
Part Number	Pairs	Nominal Diameter	
		Inch	mm
78232	2	0.209	5.31
78243	3	0.222	5.64
78234	4	0.245	6.22
78235	5	0.270	6.86
78236	6	0.296	7.52
78238	8	0.322	8.18
78239	9	0.349	8.86

20 AWG (0.616 mm²)

Stranding: 19/32 (19 x 0.203 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78242	2	0.237	6.02
78253	3	0.253	6.43
78244	4	0.279	7.09
78245	5	0.308	7.82
78246	6	0.338	8.59
78248	8	0.369	9.37
78249	9	0.400	10.16





UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart E (Chart D for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire
- Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78302	2	0.125	3.18
78303	3	0.130	3.30
78304	4	0.138	3.51
78306	6	0.155	3.94
78308	8	0.165	4.19

26 AWG (0.154 mm²)

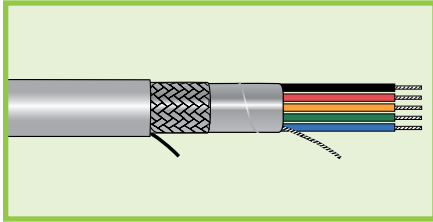
Stranding: 19/38 (19 x 0.102 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78312	2	0.133	3.38
78313	3	0.138	3.51
78314	4	0.147	3.73
78316	6	0.167	4.24
78318	8	0.178	4.52
78320	10	0.201	5.11
78321	15	0.221	5.61

24 AWG (0.241 mm²)

Stranding: 19/36 (19 x 0.127 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78322	2	0.143	3.63
78323	3	0.149	3.78
78324	4	0.159	4.04
78326	6	0.183	4.65
78328	8	0.195	4.95
78330	10	0.221	5.61
78331	15	0.244	6.20
78423	20	0.269	6.83
78453	25	0.299	7.59



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart E (Chart D for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min.
Tinned copper drain wire
Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling



22 AWG (0.382 mm²)

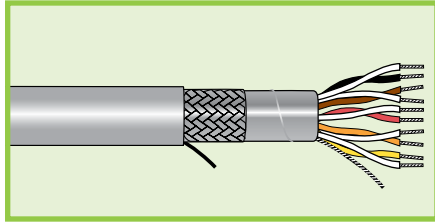
Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78332	2	0.157	3.99
78333	3	0.164	4.17
78334	4	0.176	4.47
78336	6	0.204	5.18
78338	8	0.218	5.54
78340	10	0.249	6.32
78341	15	0.276	7.01
78424	20	0.306	7.77
78454	25	0.341	8.66

20 AWG (0.616 mm²)

Stranding: 19/32 (19 x 0.203 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
78342	2	0.173	4.39
78343	3	0.181	4.60
78344	4	0.196	4.98
78346	6	0.228	5.79
78348	8	0.245	6.22
78350	10	0.281	7.14
78355	15	0.313	7.95
78425	20	0.348	8.84
78455	25	0.389	9.88



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart B (Chart A for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78352	2	0.163	4.14
78353	3	0.171	4.34
78354	4	0.184	4.67
78305	5	0.198	5.03
78356	6	0.213	5.41
78358	8	0.229	5.82
78309	9	0.244	6.20

26 AWG (0.154 mm²)

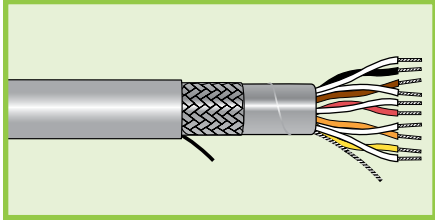
Stranding: 19/38 (19 x 0.102 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78362	2	0.177	4.50
78363	3	0.185	4.70
78364	4	0.200	5.08
78315	5	0.216	5.49
78366	6	0.233	5.92
78368	8	0.250	6.35
78319	9	0.268	6.81

24 AWG (0.241 mm²)

Stranding: 19/36 (19 x 0.127 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78372	2	0.193	4.90
78373	3	0.203	5.16
78374	4	0.220	5.59
78325	5	0.238	6.05
78376	6	0.258	6.55
78378	8	0.278	7.06
78329	9	0.298	7.57
78428	20	0.400	10.16
78458	25	0.449	11.40



UL AWM 21460
UL VW-1
CSA I A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart B (Chart A for 20 AWG)

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min.
Tinned copper drain wire
Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78382	2	0.216	5.49
78383	3	0.228	5.79
78384	4	0.248	6.30
78335	5	0.270	6.86
78386	6	0.292	7.42
78388	8	0.316	8.03
78339	9	0.340	8.64

20 AWG (0.616 mm²)

Stranding: 19/32 (19 x 0.203 mm)
 Insulation thickness: 0.007 (0.18 mm)
 Jacket thickness: 0.015 (0.38 mm)

Part Number	Pairs	Nominal Diameter	
		Inch	mm
78392	2	0.242	6.15
78393	3	0.256	6.50
78394	4	0.279	7.09
78345	5	0.305	7.75
78396	6	0.332	8.43
78398	8	0.359	9.12
78349	9	0.387	9.83



EcoFlex® Cable

600 V Continuous Flex Control Cable



Rated for over 1 million flex life cycles, EcoFlex is a fully recyclable compact cable that's up to 32% smaller and 55% lighter than PVC.

- Up to 32% smaller and 55% lighter than PVC
- Long flex life for machines with constant flexibility
- Up to 91% lower outgassing
- Contains no halogens, PVC, phthalates, or heavy metals
- Exceptional EMI performance with Supra-Shield® foil + braid

Conductors: Stranded tinned copper

Insulation: mPPE

Jacket: mPPE, Slate

Shielding: Unshielded, foil shield, Supra-Shield foil + braid

Voltage: 600 V

Bend Radius:
Unshielded: 5x

Temperature Range: -40°C to + 105°C

Availability: 100', 1000'
(30.5 m, 305 m)
Bulk, cut to length

Configurations

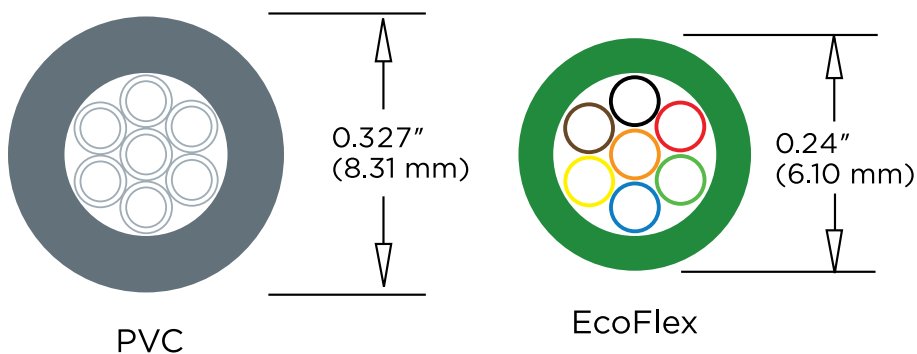
- Unshielded multiconductor
- Braid shielded multiconductor
- Supra-Shield foil + braid shielded multiconductor
- Custom configurations available

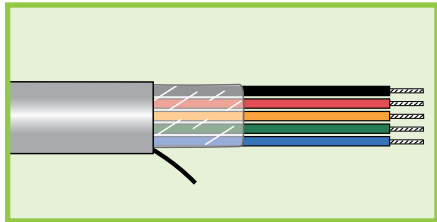


Approvals

- UL AWM 21819 (600 V, 105°C)
- UL AWM 21492 (300 V, 80°C)
- CE
- UL VW-1
- CSA AWM I/II A/B FT1
- IEC 60332-2 Flame Behavior
- RoHS
- REACH
- WEEE
- Suitable for use in NFPA 79 applications
- ISO 10993-5

20 AWG (0.51 mm²) Cable





UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.13 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79061	2	0.142	3.61
79062	3	0.147	3.73

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79056	2	0.150	3.81
79057	3	0.156	3.96
79058	4	0.166	4.22
79059	6	0.189	4.80
79060	8	0.216	5.49

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

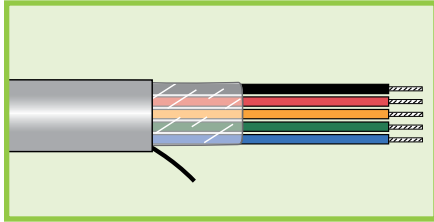
Part Number	Conductors	Nominal Diameter	
		Inch	mm
79050	2	0.162	4.11
79051	3	0.169	4.29
79052	4	0.181	4.60
79053	6	0.207	5.26
79054	8	0.238	6.05
79055	10	0.257	6.53

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79044	2	0.176	4.47
79045	3	0.184	4.67
79046	4	0.198	5.03
79047	6	0.228	5.79
79048	8	0.264	6.71
79049	10	0.286	7.26





UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79001	2	0.184	4.67
79002	3	0.193	4.90
79003	4	0.207	5.26
79004	5	0.224	5.69
79005	7	0.240	6.10
79006	9	0.296	7.52
79007	12	0.303	7.70
79008	18	0.349	8.86

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

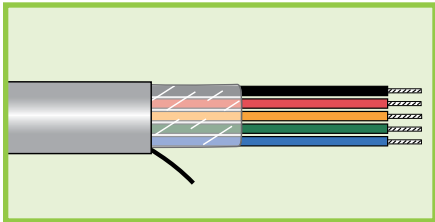
Part Number	Conductors	Nominal Diameter	
		Inch	mm
79010	2	0.208	5.28
79011	3	0.219	5.56
79012	4	0.236	5.99
79013	5	0.256	6.50
79014	7	0.277	7.04
79015	9	0.344	8.74
79016	12	0.353	8.97
79017	18	0.411	10.44

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
 Insulation thickness: 0.011 (0.28 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79019	2	0.236	5.99
79020	3	0.249	6.32
79021	4	0.270	6.86
79022	5	0.294	7.47
79023	7	0.319	8.10
79024	9	0.400	10.16
79025	12	0.411	10.44
79026	18	0.481	12.22





UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
 Insulation thickness: 0.011 (0.28 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79028	2	0.266	6.76
79029	3	0.281	7.14
79030	4	0.307	7.80
79031	5	0.335	8.51
79032	7	0.364	9.25
79033	9	0.459	11.66
79034	12	0.473	12.01
79035	18	0.556	14.12

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.035 (0.81 mm)

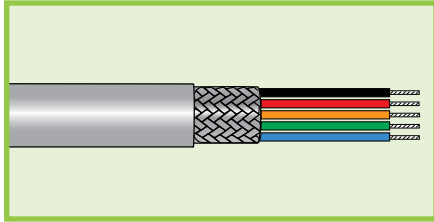
Part Number	Conductors	Nominal Diameter	
		Inch	mm
79037	3	0.326	8.28
79038	4	0.358	9.09
79039	5	0.392	9.96
79040	7	0.428	10.87

10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79041	3	0.380	9.65
79042	4	0.423	10.74
79043	5	0.465	11.81





UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- Tinned copper braid, 70% min. coverage
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling



20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79101	2	0.210	5.33
79102	3	0.219	5.56
79103	4	0.233	5.92
79104	5	0.250	6.35
79105	7	0.266	6.76
79106	9	0.321	8.15
79107	12	0.329	8.36
79108	18	0.376	9.55

18 AWG (0.81 mm²)

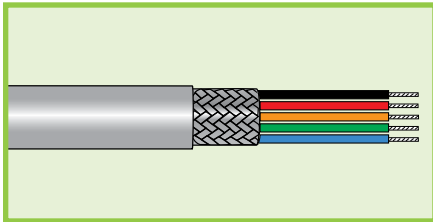
Stranding: 16/30 (16 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79109	2	0.236	5.99
79110	3	0.247	6.27
79111	4	0.264	6.71
79112	5	0.284	7.21
79113	7	0.305	7.75
79114	9	0.372	9.45
79115	12	0.381	9.68

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
 Insulation thickness: 0.011 (0.28 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79116	2	0.262	6.65
79117	3	0.275	6.98
79118	4	0.296	7.52
79119	5	0.320	8.13
79120	7	0.345	8.76



UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- Tinned copper braid, 70% min. coverage
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling



14 AWG (2.08 mm²)

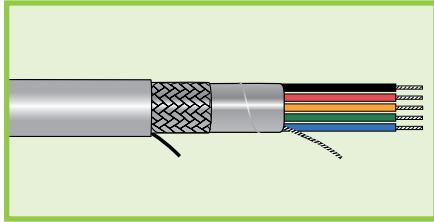
Stranding: 41/30 (41 x 0.25 mm)
 Insulation thickness: 0.011 (0.28 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79121	2	0.294	7.47
79122	3	0.309	7.85
79123	4	0.335	8.51
79124	5	0.363	9.22
79125	7	0.392	9.96

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79126	3	0.354	8.99
79127	4	0.386	9.80



UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.13 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79261	2	0.174	4.42
79262	3	0.179	4.55

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79256	2	0.182	4.62
79257	3	0.188	4.78
79258	4	0.198	5.03
79259	6	0.221	5.61
79260	8	0.248	6.30

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
 Insulation thickness: 0.011 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

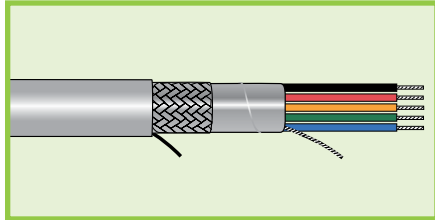
Part Number	Conductors	Nominal Diameter	
		Inch	mm
79250	2	0.194	4.93
79251	3	0.201	5.11
79252	4	0.213	5.41
79253	6	0.239	6.07
79254	8	0.270	6.86
79255	10	0.289	7.34

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79244	2	0.208	5.28
79245	3	0.216	5.49
79246	4	0.230	5.84
79247	6	0.260	6.60
79248	8	0.296	7.52
79249	10	0.318	8.08





UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79201	2	0.216	5.49
79202	3	0.225	5.72
79203	4	0.239	6.07
79204	5	0.256	6.50
79205	7	0.272	6.91
79206	9	0.328	8.33
79207	12	0.335	8.51
79208	18	0.382	9.70

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.035 (0.89 mm)

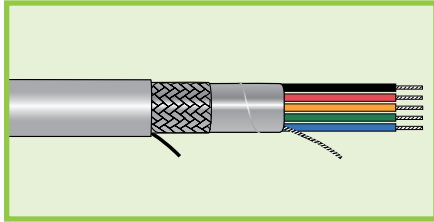
Part Number	Conductors	Nominal Diameter	
		Inch	mm
79210	2	0.242	6.15
79211	3	0.253	6.43
79212	4	0.270	6.86
79213	5	0.290	7.37
79214	7	0.311	7.90
79215	9	0.378	9.60
79216	12	0.387	9.83
79217	18	0.445	11.30

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
 Insulation thickness: 0.011 (0.28 mm)
 Jacket thickness: 0.035 (0.89 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79218	2	0.268	6.81
79219	3	0.281	7.14
79220	4	0.302	7.67
79221	5	0.326	8.28
79222	7	0.351	8.92
79223	9	0.432	10.97
79224	12	0.443	11.25





UL AWM 21819 (600 V, 105°C)
UL AWM 21492 (300 V, 80°C)
UL VW-1
CSA I/II A/B FT1

Temperature Range

-40°C to + 80°C

Conductor Color Coding

- Chart D

Materials

- Tinned copper conductors
- mPPE insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire Tinned copper braid, 70% coverage min.
- mPPE jacket, slate

Bend Radius

- Unshielded: 5x static, 5x flexing
- Shielded: 6x static, 8x flexing

Properties

- Zero halogen
- Specific gravity: 1.03
- 100% recyclable
- Low outgassing
- Suitable for use in NFPA 79 applications
- IEC 60332-2 flame behavior

Availability

100 ft (30.5 m)
 1000 ft (305 m)
 Bulk

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
 Insulation thickness: 0.011 (0.28 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79225	2	0.300	7.62
79226	3	0.315	8.00
79227	4	0.341	8.66
79228	5	0.369	9.37
79229	7	0.398	10.11
79230	9	0.493	12.52
79231	12	0.507	12.88

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79232	3	0.360	9.14
79233	4	0.391	9.93
79234	5	0.426	10.82
79235	7	0.462	11.73

10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.035 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
79236	3	0.419	10.64
79237	4	0.457	11.61



EcoFlex® PUR Cable

Rugged 600 V Continuous Flex Cable



Provides abrasion, UV, and oil resistance with a tough, zero-halogen polyurethane jacket in a flex cable that's up to 40% smaller and 44% lighter than other 600 V continuous flex cables. More than 130 standard constructions are available to meet your performance requirements.

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Unshielded or braid shielding
- 28 to 10 AWG
- Zero halogen
- Contains no heavy metals or phthalates

Conductors: Finely stranded tinned copper (EN60228 Conductors, Class 6)

Insulation: mPPE

Jacket: PUR, zero halogen, slate

Shielding:

- Unshielded
- Tinned copper braid, 85% coverage

Voltage: 600 V (UL)

Temperature Range:

- -40°C to + 80°C (dynamic)
- -50°C to + 90°C (static)

Availability:

- 100' put-up in stock
- Bulk (Min. 1000')

Configurations

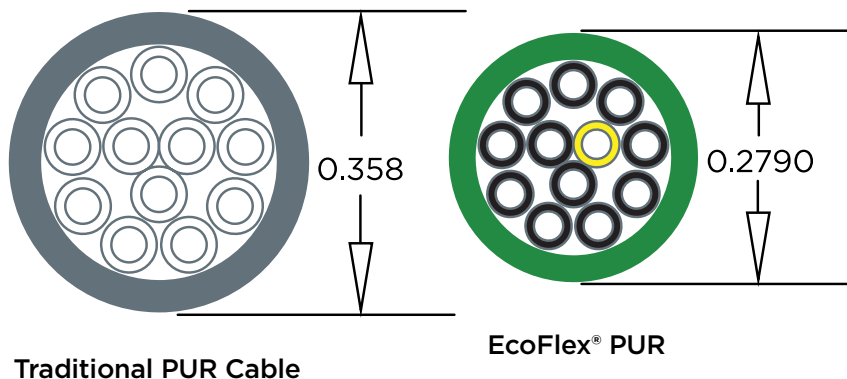
- Unshielded multiconductor
- Braid shielded multiconductor
- Custom configuration available



Approvals

- UL AWM 21959 (90°C / 600 VRMS)
- UL Oil Res I
- UL Sunlight Resistant
- CSA AWM I/II A/B FT2
- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC
- RoHS
- REACH

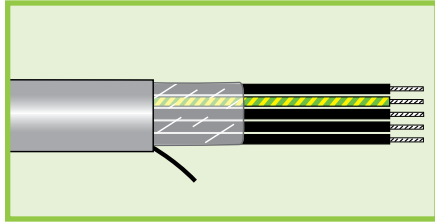
20 AWG 12 Conductor Cable



Order free samples at
www.alphawire.com/ecogen
 or call 1-800-52-ALPHA

EcoFlex® PUR

600 V Unshielded, Multiconductor



UL AWM 21959 (90°C / 600 VRMS)
CSA AWM I/II A/B FT2

Temperature Range

-40°C to + 80°C (dynamic)
 -50°C to + 90°C (static)

Conductor Color Coding

- Black and numbered, with one green/yellow

Materials

- Finely stranded tinned copper
- mPPE insulation
- PUR, zero halogen jacket, slate

Properties

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Zero halogen
- Contains no heavy metals or phthalates

Flammability

- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation

Additional Approvals

- UL Oil Res I
- UL Sunlight Resistant
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC

Availability

100 ft (30.5 m) put-up in stock
 Bulk (Min. 1000 ft (305 m))

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80001	2	0.140	3.56
80002	3	0.146	3.71

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80003	2	0.150	3.81
80004	3	0.156	3.96
80005	5	0.179	4.55
80006	7	0.192	4.88
80007	9	0.231	5.87

24 AWG (0.241 mm²)

Stranding: 19/36 (19 x 0.127 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80008	2	0.158	4.01
80009	3	0.165	4.19
80010	5	0.190	4.83
80011	7	0.204	5.18
80012	9	0.247	6.27
80013	10	0.248	6.30

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80014	2	0.172	4.37
80015	3	0.180	4.57
80016	5	0.195	4.95
80017	7	0.225	5.72
80018	9	0.275	6.98
80019	10	0.276	7.01

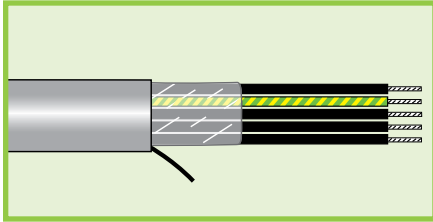


Alpha Wire | www.alphawire.com | 1-800-52 ALPHA

Specifications subject to change. For complete specifications and availability, visit www.alphawire.com.

EcoFlex® PUR

600 V Unshielded, Multiconductor



UL AWM 21959 (90°C / 600 VRMS)
CSA AWM I/II A/B FT2

Temperature Range

-40°C to + 80°C (dynamic)
 -50°C to + 90°C (static)

Conductor Color Coding

- Black and numbered, with one green/yellow

Materials

- Finely stranded tinned copper
- mPPE insulation
- PUR, zero halogen jacket, slate

Properties

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Zero halogen
- Contains no heavy metals or phthalates

Flammability

- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation

Additional Approvals

- UL Oil Res I
- UL Sunlight Resistant
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC

Availability

100 ft (30.5 m) put-up in stock
 Bulk (Min. 1000 ft (305 m))

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

20 AWG (0.523 mm²)

Stranding: 26/34 (26 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80020	2	0.178	4.52
80021	3	0.187	4.75
80022	5	0.217	5.51
80023	6	0.234	5.94
80024	7	0.234	5.94
80025	9	0.287	7.29
80026	12	0.297	7.54
80027	18	0.344	8.74
80028	20	0.361	9.17
80029	25	0.398	10.11
80030	30	0.421	10.69
80031	36	0.454	11.53

18 AWG (0.825 mm²)

Stranding: 41/34 (41 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80032	2	0.194	4.93
80033	3	0.204	5.18
80034	4	0.221	5.61
80035	5	0.239	6.07
80036	7	0.258	6.55
80037	9	0.318	8.08
80038	12	0.330	8.38
80039	18	0.384	9.75
80040	25	0.446	11.33

16 AWG (1.31 mm²)

Stranding: 65/34 (65 x 0.16 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.032 (0.81 mm)

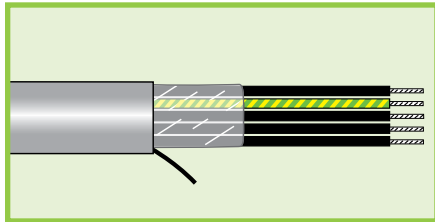
Part Number	Conductors	Nominal Diameter	
		Inch	mm
80041	2	0.228	5.79
80042	3	0.241	6.12
80043	4	0.263	6.68
80044	5	0.285	7.24
80045	7	0.310	7.87
80046	9	0.386	9.80
80047	12	0.401	10.19
80048	18	0.470	11.94
80049	25	0.548	13.92
80050*	36	0.672	17.07

*0.053 (1.35 mm) jacket thickness



EcoFlex® PUR

600 V Unshielded, Multiconductor



UL AWM 21959 (90°C / 600 VRMS)
CSA AWM I/II A/B FT2

Temperature Range

-40°C to + 80°C (dynamic)
 -50°C to + 90°C (static)

Conductor Color Coding

- Black and numbered, with one green/yellow

Materials

- Finely stranded tinned copper
- mPPE insulation
- PUR, zero halogen jacket, slate

Properties

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Zero halogen
- Contains no heavy metals or phthalates

Flammability

- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation

Additional Approvals

- UL Oil Res I
- UL Sunlight Resistant
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC

Availability

100 ft (30.5 m) put-up in stock
 Bulk (Min. 1000 ft (305 m))

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

14 AWG (2.11 mm²)

Stranding: 105/34 (105 x 0.16 mm)
 Insulation thickness: 0.013 (0.33 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80052	3	0.275	6.98
80053	4	0.301	7.65
80054	5	0.329	8.36
80055	7	0.358	9.09
80056	9	0.449	11.40
80057	12	0.467	11.86
80058	18	0.550	13.97
80059*	25	0.686	17.42

*0.053 (1.35 mm) jacket thickness

12 AWG (3.38 mm²)

Stranding: 168/34 (168 x 0.16 mm)
 Insulation thickness: 0.015 (0.38 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80060	3	0.357	9.07
80061	4	0.393	9.98
80062	5	0.432	10.97
80063	7	0.473	12.01
80064*	9	0.642	16.31

*0.053 (1.35 mm) jacket thickness

10 AWG (5.21 mm²)

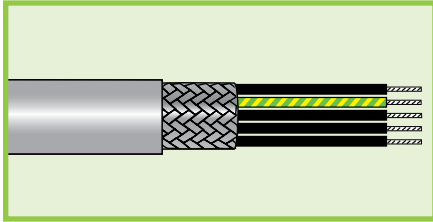
Stranding: 259/34 (259 x 0.16 mm)
 Insulation thickness: 0.016 (0.41 mm)
 Jacket thickness: 0.053 (1.35 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80065	3	0.464	11.79
80066	4	0.508	12.90
80067	5	0.556	14.12
80068	7	0.606	15.39



EcoFlex® PUR

600 V Braid Shielded, Multiconductor



UL AWM 21959 (90°C / 600 VRMS)
CSA AWM I/II A/B FT2

Temperature Range

-40°C to + 80°C (dynamic)
 -50°C to + 90°C (static)

Conductor Color Coding

- Black and numbered, with one green/yellow

Materials

- Finely stranded tinned copper
- mPPE insulation
- Tinned copper braid, 85% coverage
- PUR, zero halogen jacket, slate

Properties

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Zero halogen
- Contains no heavy metals or phthalates

Flammability

- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation

Additional Approvals

- UL Oil Res I
- UL Sunlight Resistant
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC

Availability

100 ft (30.5 m) put-up in stock
 Bulk (Min. 1000 ft (305 m))

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80101	2	0.168	4.27
80102	3	0.174	4.42

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80103	2	0.178	4.52
80104	3	0.184	4.67
80105	4	0.196	4.98
80106	6	0.220	5.59
80107	8	0.246	6.25

24 AWG (0.241 mm²)

Stranding: 19/36 (19 x 0.127 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80108	2	0.186	4.72
80109	3	0.193	4.90
80110	5	0.218	5.54
80111	7	0.232	5.89
80112	9	0.275	6.98
80113	10	0.276	7.01

22 AWG (0.382 mm²)

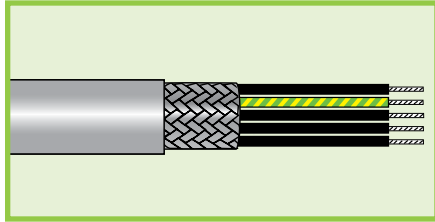
Stranding: 19/34 (19 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80114	2	0.200	5.08
80115	3	0.208	5.28
80116	5	0.223	5.66
80117	7	0.253	6.43
80118	9	0.303	7.70
80119	10	0.304	7.72



EcoFlex® PUR

600 V Braid Shielded, Multiconductor



UL AWM 21959 (90°C / 600 VRMS)
CSA AWM I/II A/B FT2

Temperature Range

-40°C to + 80°C (dynamic)
 -50°C to + 90°C (static)

Conductor Color Coding

- Black and numbered, with one green/yellow

Materials

- Finely stranded tinned copper
- mPPE insulation
- Tinned copper braid, 85% coverage
- PUR, zero halogen jacket, slate

Properties

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Zero halogen
- Contains no heavy metals or phthalates

Flammability

- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation

Additional Approvals

- UL Oil Res I
- UL Sunlight Resistant
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC

Availability

100 ft (30.5 m) put-up in stock
 Bulk (Min. 1000 ft (305 m))

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

20 AWG (0.523 mm²)

Stranding: 26/34 (26 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80120	2	0.206	5.23
80121	3	0.215	5.46
80122	5	0.245	6.22
80123	6	0.262	6.65
80124	7	0.262	6.65
80125	9	0.315	8.00
80126	12	0.325	8.25
80127	18	0.372	9.45
80128	20	0.389	9.88
80129	25	0.426	10.82
80130	30	0.449	11.40
80131	36	0.488	12.40

18 AWG (0.825 mm²)

Stranding: 41/34 (41 x 0.16 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80132	2	0.222	5.64
80133	3	0.232	5.89
80134	4	0.249	6.32
80135	5	0.267	6.78
80136	7	0.286	7.26
80137	9	0.346	8.79
80138	12	0.358	9.09
80139	18	0.412	10.46
80140	25	0.676	17.17

16 AWG (1.31 mm²)

Stranding: 65/34 (65 x 0.16 mm)
 Insulation thickness: 0.012 (0.30 mm)
 Jacket thickness: 0.032 (0.81 mm)

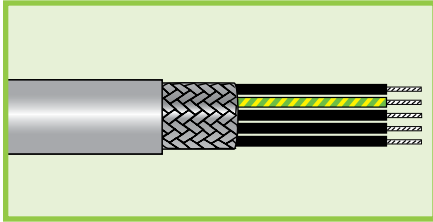
Part Number	Conductors	Nominal Diameter	
		Inch	mm
80141	2	0.256	6.50
80142	3	0.269	6.83
80143	4	0.291	7.39
80144	5	0.313	7.95
80145	7	0.338	8.59
80146	9	0.414	10.52
80147	12	0.429	10.90
80148	18	0.504	12.80
80149*	25	0.624	15.85
80050*	36	0.672	17.07

*0.053 (1.35 mm) jacket thickness



EcoFlex® PUR

600 V Braid Shielded, Multiconductor



UL AWM 21959 (90°C / 600 VRMS)
CSA AWM I/II A/B FT2

Temperature Range

-40°C to + 80°C (dynamic)
 -50°C to + 90°C (static)

Conductor Color Coding

- Black and numbered, with one green/yellow

Materials

- Finely stranded tinned copper
- mPPE insulation
- Tinned copper braid, 85% coverage
- PUR, zero halogen jacket, slate

Properties

- Up to 40% smaller and 44% lighter
- 8 million flex cycles (and still counting)
- Flexible at low temperatures
- Zero halogen
- Contains no heavy metals or phthalates

Flammability

- EN60332-1 Flame Behavior
- EN60332-2 Flame Behavior
- EN60754-2 Acid Gas Generation

Additional Approvals

- UL Oil Res I
- UL Sunlight Resistant
- EN60228 Class 6
- EU Low Voltage Directive 2006/95/EC

Availability

100 ft (30.5 m) put-up in stock
 Bulk (Min. 1000 ft (305 m))

FIT® Tubing Recommendations

- FIT-221L: Low smoke zero halogen
- FIT Spiral Wrap: Simplifies wire harnessing, cabling, and bundling

14 AWG (2.11 mm²)

Stranding: 105/34 (105 x 0.16 mm)
 Insulation thickness: 0.013 (0.33 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80150	3	0.303	7.70
80151	4	0.329	8.36
80152	5	0.357	9.07
80153	7	0.386	9.80
80154	9	0.483	12.27
80155	12	0.501	12.73
80156*	18	0.626	15.90
80157*	25	0.727	18.47

*0.053 (1.35 mm) jacket thickness

12 AWG (3.38 mm²)

Stranding: 168/34 (168 x 0.16 mm)
 Insulation thickness: 0.015 (0.38 mm)
 Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80158	3	0.385	9.78
80159	4	0.421	10.69
80160	5	0.460	11.68
80161	7	0.507	12.88
80162	9	0.683	17.35

*0.053 (1.35 mm) jacket thickness

10 AWG (5.21 mm²)

Stranding: 259/34 (259 x 0.16 mm)
 Insulation thickness: 0.016 (0.41 mm)
 Jacket thickness: 0.053 (1.35 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
80163	3	0.492	12.50
80164	4	0.542	13.77
80165	5	0.590	14.99
80166	7	0.640	16.26



Alpha Wire | www.alphawire.com | 1-800-52 ALPHA

Specifications subject to change. For complete specifications and availability, visit www.alphawire.com.

EcoWire® 600 V and EcoWire Plus 300 V



mPPE Wire



Innovative EcoWire combines increased performance with a minimized environmental impact.

EcoWire Plus offers all the benefits of EcoWire, plus higher temperature range and additional fluid resistance for demanding factory applications.

Compared to PVC wire, EcoWire's (mPPE) insulation allows wire that is:

- Up to 45% smaller in diameter
- Up to 40% lighter
- Zero halogen, with no heavy metal pigments
- 100% recyclable

Temperature Range

- 40°C to + 105°C (EcoWire)
- 40°C to + 110°C (EcoWire Plus)

Materials

Stranded or solid tinned copper conductors
Modified polyphenylene ether insulation

Approvals

- UL AWM 11028 VW-1
- CSA AWM I A/B FT1
- IEC 60332-2 Flame Behavior
- RoHS Compliant
- REACH Compliant
- Zero Halogen
- CE Compliant

Availability

- 100 ft (30.5 m)
- 1000 ft (305 m)
- 5000 ft (1524 m)
- 25,000 ft (7620 m) drum

EcoWire

Part No.	Conductor Size		Stranding		Insulation Thickness		Wire Diameter	
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm
6710	28	0.08	7/36	7 x 0.12	0.010	0.25	0.034	0.86
6711	26	0.13	7/34	7 x 0.16	0.010	0.25	0.038	0.97
6712	24	0.20	7/32	7 x 0.20	0.010	0.25	0.043	1.09
6713	22	0.32	7/30	7 x 0.25	0.010	0.25	0.049	1.24
6714	20	0.52	10/30	10 x 0.25	0.010	0.25	0.055	1.40
6715	18	0.82	16/30	16 x 0.25	0.010	0.25	0.067	1.70
6715S	18	0.82	Solid	Solid	0.010	0.25	0.059	1.50
6716	16	1.30	26/30	26 x 0.25	0.011	0.28	0.081	2.06
6717	14	2.08	41/30	41 x 0.25	0.011	0.28	0.096	2.44
6717S	14	2.08	Solid	Solid	0.011	0.28	0.086	2.18
6718	12	3.30	65/30	65 x 0.25	0.012	0.30	0.117	2.97
6719	10	5.26	105/30	105 x 0.25	0.012	0.30	0.142	3.66

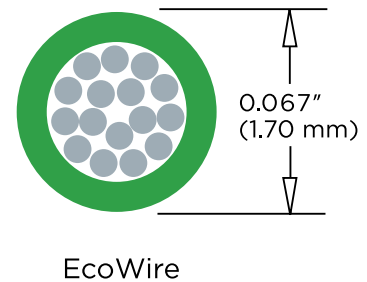
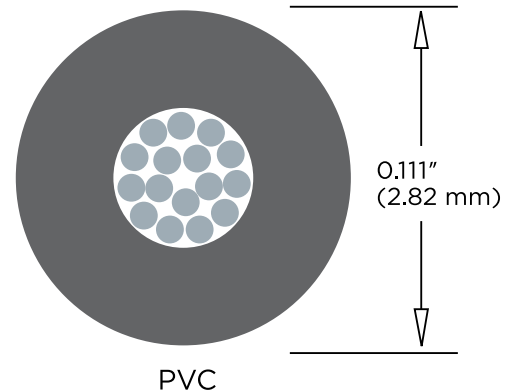
White, Black, Red, Green, Yellow, Blue, Brown, Orange, Slate, Violet, Yellow/Green, Dark Blue

EcoWire Plus

Part No.	Conductor Size			Stranding		Insulation Thickness		Wire Diameter	
	AWG	mm ²	ISO mm Equiv.	AWG	mm	Inch	mm	Inch	mm
6820	28	0.09	—	7/36	7 x 0.12	0.008	0.20	0.031	0.79
6821	26	0.14	0.13	7/34	7 x 0.16	0.008	0.20	0.035	0.89
6822	24	0.23	0.22	7/32	7 x 0.20	0.008	0.20	0.040	1.02
6823	22	0.35	0.35	7/30	7 x 0.25	0.008	0.20	0.046	1.17
6824	20	0.56	0.5	7/28	7 x 0.32	0.008	0.20	0.054	1.37
6825	18	0.81	0.75	19/0.0092	19 x 0.23	0.008	0.20	0.062	1.57
6826	17	0.96	1	19/30	19 x 0.25	0.008	0.20	0.066	1.68
6827	16	1.23	—	19/29	19 x 0.29	0.010	0.24	0.077	1.96
6828	15	1.53	1.5	19/28	19 x 0.32	0.010	0.24	0.083	2.11
6829	14	1.94	2	19/27	19 x 0.36	0.012	0.30	0.095	2.41
6830	12	3.08	3	19/25	19 x 0.46	0.015	0.38	0.120	3.05
6831	10	4.92	5	19/23	19 x 0.57	0.017	0.43	0.147	3.73

White, Black, Red, Green, Yellow, Blue, Brown, Orange, Green/Yellow

18 AWG (0.81) Wire



Conductor Color Coding



Multipair Cables

Chart A				Chart B			
Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination
1	Black + Red	14	Green + Blue	1	White + Black	14	Black + Green
2	Black + White	15	Green + White	2	White + Brown	15	Black + Blue
3	Black + Green	16	Green + Brown	3	White + Red	16	Black + Violet
4	Black + Blue	17	Green + Orange	4	White + Orange	17	Black + Slate
5	Black + Brown	18	Green + Yellow	5	White + Yellow	18	Brown + Red
6	Black + Yellow	19	White + Blue	6	White + Green	19	Brown + Orange
7	Black + Orange	20	White + Brown	7	White + Blue	20	Brown + Yellow
8	Red + Green	21	White + Orange	8	White + Violet	21	Brown + Green
9	Red + White	22	White + Yellow	9	White + Slate	22	Brown + Blue
10	Red + Blue	23	Blue + Brown	10	Black + Brown	23	Brown + Violet
11	Red + Yellow	24	Blue + Orange	11	Black + Red	24	Brown + Slate
12	Red + Brown	25	Blue + Yellow	12	Black + Orange	25	Red + Orange
13	Red + Orange			13	Black + Yellow		

Multiconductor Cables

Chart D			
No.	Base Color	1st Stripe	2nd Stripe
1	Black		
2	Red		
3	White		
4	Green		
5	Orange		
6	Blue		
7	Brown		
8	Yellow		
9	Violet		
10	Slate		
11	Pink		
12	Tan		
13	Red	Green	
14	Red	Yellow	
15	Red	Black	
16	White	Black	
17	White	Red	
18	White	Green	
19	White	Yellow	
20	White	Blue	
21	White	Brown	
22	White	Orange	
23	White	Slate	
24	White	Violet	
25	White	Black	Red
26	White	Black	Green
27	White	Black	Yellow
28	White	Black	Blue
29	White	Black	Brown
30	White	Black	Orange
31	White	Black	Slate
32	White	Black	Violet
33	White	Black	Black
34	White	Red	Black
35	White	Red	Red
36	White	Red	Green

Multiconductor Cables

Chart E			
No.	Base Color	1st Stripe	2nd Stripe
1	Black		
2	Brown		
3	Red		
4	Orange		
5	Yellow		
6	Green		
7	Blue		
8	Violet		
9	Slate		
10	White		
11	White	Black	
12	White	Brown	
13	White	Red	
14	White	Orange	
15	White	Yellow	
16	White	Green	
17	White	Blue	
18	White	Violet	
19	White	Slate	
20	White	Black	Brown
21	White	Black	Red
22	White	Black	Orange
23	White	Black	Yellow
24	White	Black	Green
25	White	Black	Blue

Cables you trust. Service you deserve.

Every application is critical and cable failure is not an option when the safety of equipment and personnel is paramount. Specify Alpha cable for rugged, reliable performance, since the integrity of your system is only as robust as the products you use.

Custom cable is standard

Alpha Wire goes one step further: manufacturing custom cables to meet unique applications—offering specific conductor counts, shielding options, jacket materials, and versatile product designs. Our custom cable orders are often shipped in less than a week, once again giving you products with more convenience and less delay.

Service and support, second-to-none

Selecting the correct cable for your critical application is essential to overall system reliability, performance, and safety. So we make it easy for you to select the right Alpha cable for your specific application. Our online resources include a wire and cable selection guide, technical information, full product catalog, and a distributor locator to make it easy to select and get the cable you need. Can't find what you're looking for? Design the cable to your specification. It's easy, just visit **www.alphawire.com**!

GLOBAL HEADQUARTERS
711 Lidgerwood Avenue
Elizabeth, NJ 07207-0711 USA
Toll Free: 1-800-52 ALPHA
Tel: 1-908-925-8000
Fax: 1-908-925-5411
E-mail: info@alphawire.com

EUROPE
Alpha Wire International
Saxon House
1 Downside | Sunbury-on-Thames
Middlesex | United Kingdom | TW16 6RT
Tel: 01 932 772 422
Fax: 01 932 772 433
E-mail: europe@alphawire.com

ASIA PACIFIC
Alpha Wire
Silver Center | Room 1712
North Shanxi Road 1388
Shanghai | China | 200060
Tel: + 86-21-61498201/61498205
Fax: + 86-21-61498001
E-mail: apac@alphawire.com

