EcoGen™
Wire and Cable

AlphaWire

Cables you trust. Service you deserve.

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

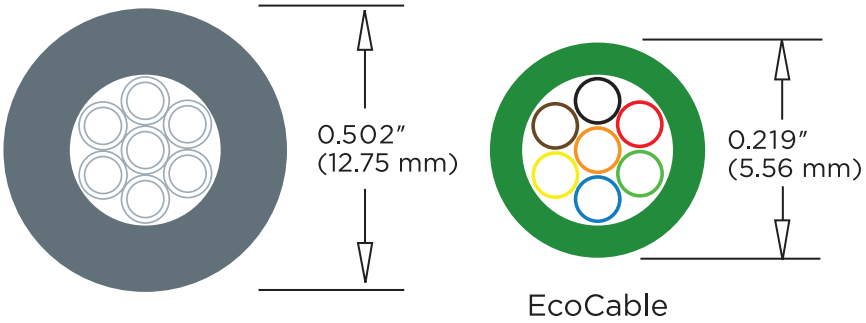
Configurations

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

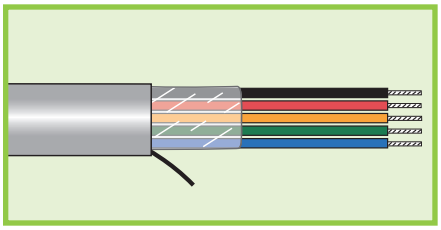
Approvals

- 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) 7-Conductor Unshielded 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: Zero-halogen wrap simplifies wire harnessing, cabling, and bundling

28 AWG (0.089 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

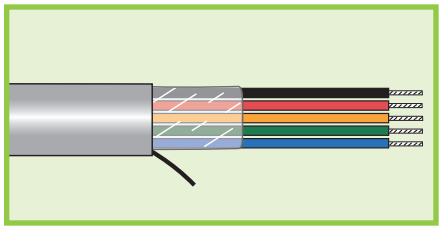
24 AWG (0.28 mm²)

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

RoHS Compliant CA PROP 65

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: Zero-halogen 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
77056	2	0.184	4.67
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

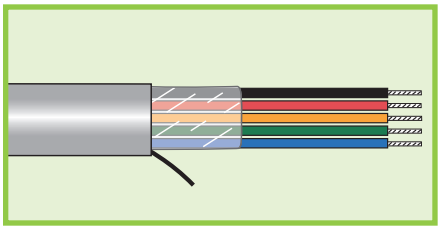
18 AWG (0.81 mm²)

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	0.206	5.23
77021	3	0.217	5.51
77022	4	0.235	5.97
77023	5	0.255	6.48
77024	7	0.276	7.01
77025	9	0.320	8.13
77026	12	0.355	9.02
77027	15	0.387	9.83
77028	19	0.414	10.52
77029	25	0.482	12.24

RoHS Compliant CA PROP 65

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: Zero-halogen 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	0.269	6.83
77031	5	0.293	7.44
77032	7	0.319	8.10
77033	9	0.371	9.42
77034	12	0.413	10.49
77035	15	0.451	11.46
77036	19	0.484	12.29
77037*	25	0.608	15.44

*0.053 (1.35 mm) jacket thickness

14 AWG (2.08 mm²)

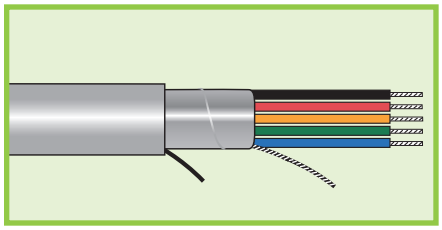
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.032 (0.81 mm)

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	0.686	17.42

*0.053 (1.35 mm) jacket thickness

RoHS Compliant CA PROP 65

EcoCable®
600 V Foil Shield, 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
- 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: Zero-halogen wrap simplifies wire harnessing, cabling, and bundling

28 AWG (0.089 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

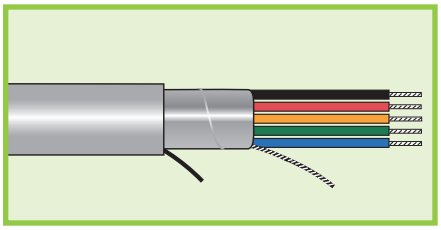
24 AWG (0.28 mm²)

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

RoHS Compliant CA PROP 65

EcoCable®
600 V Foil Shield, 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: Zero-halogen 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)

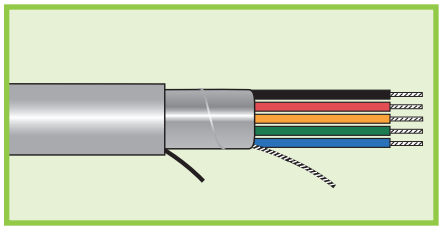
Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter	
		Inch	mm
77124	2	0.210	5.33
77126	3	0.221	5.61
77127	4	0.239	6.07
77128	5	0.259	6.58
77129	7	0.281	7.14
77130	9	0.324	8.23
77121	12	0.359	9.12
77122	15	0.391	9.93
77123	19	0.418	10.62
77125	25	0.486	12.34

RoHS Compliant CA PROP 65

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

EcoCable®
600 V Foil Shield, 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
- 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: Zero-halogen 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	0.238	6.05
77134	3	0.251	6.38
77135	4	0.273	6.93
77136	5	0.297	7.54
77137	7	0.323	8.20
77138	9	0.375	9.53
77131	12	0.417	10.59
77132	15	0.455	11.56

14 AWG (2.08 mm²)

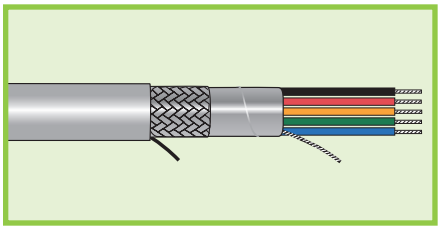
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.032 (0.81 mm)

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

RoHS Compliant CA PROP 65

EcoCable®

600 V Supra-Shield® Foil + Braid Shield, 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
- 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

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- FIT-221L: Low smoke zero halogen
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28 AWG (0.089 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
77252	2	0.166	4.22
77253	3	0.172	4.37
77254	4	0.181	4.60
77255	6	0.202	5.13

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

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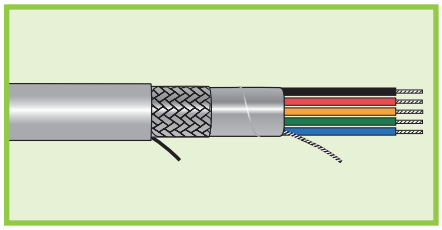
EcoCable®

600 V Supra-Shield® Foil + Braid Shield, 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
- 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
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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	0.234	5.94
77214	3	0.245	6.22
77215	4	0.263	6.68
77216	5	0.283	7.19
77217	7	0.305	7.75
77218	9	0.348	8.84
77219	12	0.383	9.73
77220	15	0.414	10.52
77221	19	0.442	11.23

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	0.262	6.65
77223	3	0.275	6.99
77224	4	0.297	7.54
77225	5	0.321	8.15
77226	7	0.347	8.81
77227	9	0.399	10.13
77228	12	0.441	11.20
77229	15	0.479	12.17
77230	19	0.512	13.00

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	0.720	17.22

*0.053 (1.35 mm) jacket thickness

RoHS Compliant CA PROP 65

Conductor Color Coding

Multipair Cables

Chart A

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

Chart B

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

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