Xtra-Guard® Performance Cable

Ultimate performance in extreme environments

Xtra-Guard® Performance Cable

Ultimate performance in extreme environments

Alpha Wire's Xtra-Guard cable brings performance and reliability to the biggest challenges in the toughest environments. No matter what extremes your application faces, you'll find an Xtra-Guard cable that excels in meeting your requirements. Downtime is costly—whether caused by a complete cable failure or from the little glitches that occur when a cable doesn't live up to the demands of the application.

Xtra-Guard means peace of mind.

Hazard-matched to survive in the most demanding operating conditions, Xtra-Guard cable is the longest-lasting, highest-performing cable available. Field-proven application performance, year after year, has made Xtra-Guard cable the first choice of engineers for more than three decades.

Superior by design

Xtra-Guard performance cable is designed to meet your needs. Its round construction makes it easier to install, seal, and route. With nearly 5000 standard constructions and the industry's broadest range of gauges, conductor counts, shielding options, and jacket color choices, Xtra-Guard cable sets the global standard for reliable performance.

Applications

- **Automotive**
- **Industrial**
- **Machine tools**
- **Marine**
- **Medical/biotechnology**
- **Military**
- **Mining**
- **Petrochemical**
- **Semiconductor**
- **Solar**
- **Wind power**

Key features

- **2 to 80 conductors, configured as single conductors or pairs**
- **28 – 14 AWG**
- **Stranded conductors for flexibility**
- **Choice of shielding options:**
  - **Unshielded**
  - **Aluminum/polyester for moderate EMC performance**
  - **Supra-Shield® foil/braid for exceptional EMC performance**

Choose the right Xtra-Guard cable for your application

Xtra-Guard 1
High Performance
High performance in a tough PVC cable

Xtra-Guard 2
Oil and Abrasion Resistant
Abrasion resistant to withstand mechanical abuse

Xtra-Guard 3
Direct Burial
Direct burial—no conduit needed

Xtra-Guard 4
Advanced Temperature and Chemical Performance
Extreme temperature handles hot, cold, spills

Xtra-Guard 5
Maximum Chemical and Temperature Performance
Chemical and temperature resistant to withstand the most hazardous environments

Xtra-Guard Flex
Flexible/Flexing
Wide variety of flexing applications

Xtra-Guard	Application							
	High Temp	Low Temp	UV	Oil/Water/ Chemical	Abrasion	Direct Burial	EMI Protection with Supra-Shield	High Flex/ Continuous Flex
Xtra-Guard 1	●○○	●○○	●●○	●○○	●○○	NR	●●●	NR
Xtra-Guard 2	●○○	●○○	●●○	●●○	●●●	NR	●●●	NR
Xtra-Guard 3	●○○	●○○	●●○	●●○	●○○	●●●	●●●	NR
Xtra-Guard 4	●●○	●●○	●●○	●●○	●○○	●○○	●●●	NR
Xtra-Guard 5	●●●	●●●	●●●	●●●	●●○	●●○	●●●	NR
Xtra-Guard Flex	●○○	●○○	●○○	●○○ – ●●○	●○○ – ●●○	NR	●●●	●●○ – ●●●

●○○ = Good; ●●○ = Very Good; ●●● = Excellent; NR = Not Recommended

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

Xtra-Guard® 1
High Performance

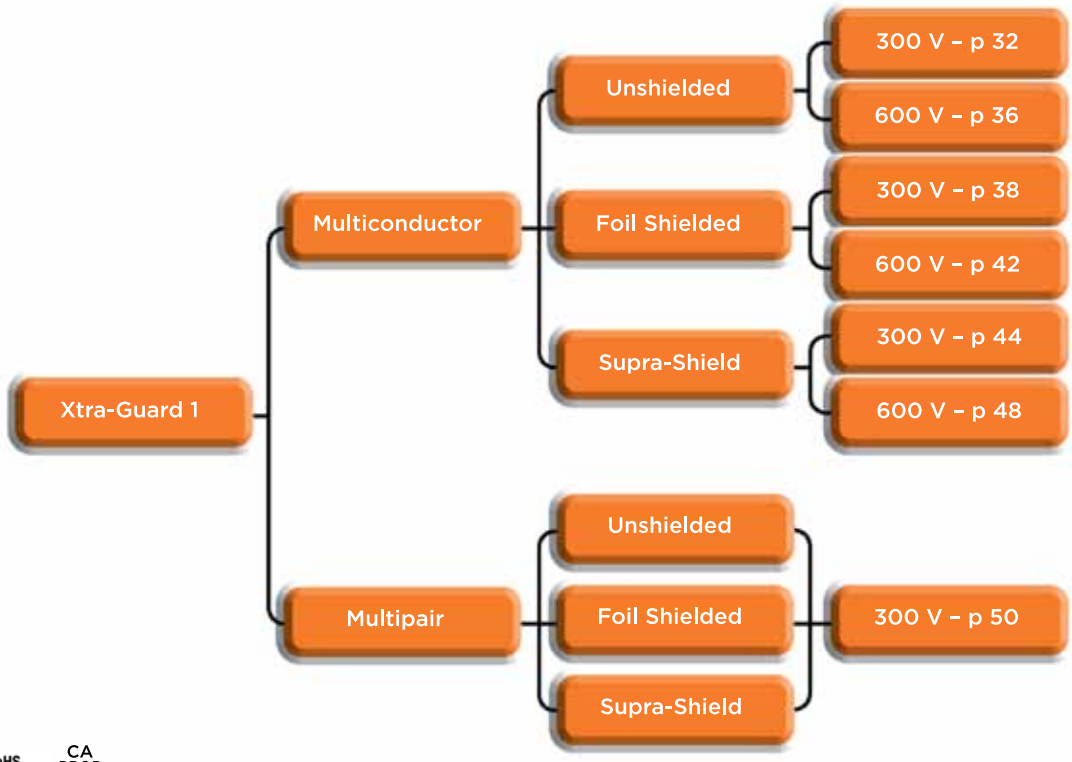
Features
- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- Premium-grade PVC insulation and jacket for easier cable routing in small spaces
- 300 V and 600 V
- Unshielded, foil shielded, or Supra-Shield® foil/braid
- 105°C temperature rating
- UL VW-1, UL 1685, and CSA FT-4 flammability rating
- Nylon ripcord for easy jacket stripping

Applications
- EIA RS-232 interface
- High technology applications in controlled environments
- Medical electronics
- Point-of-sale equipment
- Computer peripherals
- Industrial process controls

FIT® Tubing Recommendations
- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

SLATE	BEIGE	WHITE
RED	BLACK	BLUE
GREEN	YELLOW	ORANGE

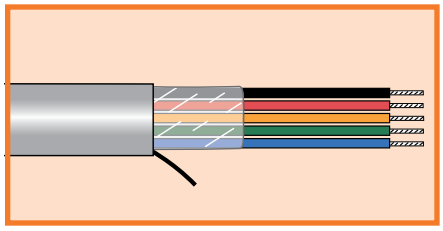
Xtra-Guard cables are available in a range of long-lasting colors for fast, easy identification, for safety reasons, and for matching the color of your system.



RoHS Compliant CA PROP 65

Xtra-Guard® 1

High performance
300 V Unshielded, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.127 mm)
Insulation thickness: 0.010 (0.25 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5920	2	0.138	3.51	0.032	0.81
5921	3	0.144	3.66	0.032	0.81
5922	4	0.153	3.89	0.032	0.81
5923	6	0.174	4.42	0.032	0.81
5924	7	0.174	4.42	0.032	0.81
5925	8	0.185	4.70	0.032	0.81

26 AWG (0.14 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5666	2	0.146	3.71	0.032	0.81
5667	3	0.152	3.86	0.032	0.81
5668	4	0.162	4.11	0.032	0.81
5669	6	0.186	4.72	0.032	0.81
5670	7	0.186	4.72	0.032	0.81
5671	8	0.198	5.03	0.032	0.81
5672	10	0.224	5.69	0.032	0.81
5673	15	0.248	6.30	0.032	0.81

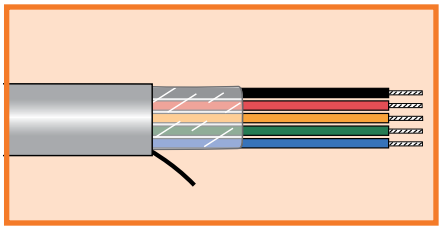
24 AWG (0.23 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5012C	2	0.156	3.96	0.032	0.81
5013C	3	0.163	4.14	0.032	0.81
5014C	4	0.175	4.45	0.032	0.81
5016C	6	0.201	5.11	0.032	0.81
5018C	8	0.215	5.46	0.032	0.81
5020C	10	0.244	6.20	0.032	0.81
5020/15C	15	0.271	6.88	0.032	0.81
5020/20C	20	0.300	7.62	0.032	0.81
5020/25C	25	0.332	8.43	0.032	0.81
5020/30C	30	0.350	8.89	0.032	0.81
5020/40C	40	0.390	9.91	0.032	0.81
5020/50C	50	0.429	10.90	0.032	0.81

Xtra-Guard® 1

High Performance
300 V Unshielded, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5002C	2	0.168	4.27	0.032	0.81
5003C	3	0.176	4.47	0.032	0.81
5004C	4	0.189	4.80	0.032	0.81
5006C	6	0.219	5.56	0.032	0.81
5008C	8	0.235	5.97	0.032	0.81
5010C	10	0.268	6.81	0.032	0.81
5010/15C	15	0.299	7.59	0.032	0.81
5010/20C	20	0.331	8.41	0.032	0.81
5010/25C	25	0.368	9.35	0.032	0.81
5010/30C	30	0.389	9.88	0.032	0.81
5010/40C	40	0.434	11.02	0.032	0.81
5010/50C	50	0.478	12.14	0.032	0.81
5010/60C	60	0.518	13.16	0.032	0.81

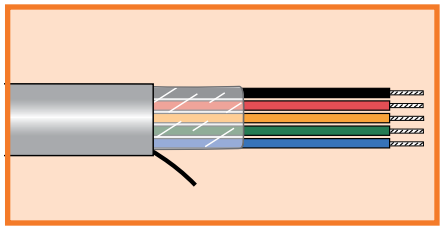
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5052C	2	0.208	5.28	0.032	0.81
5053C	3	0.219	5.56	0.032	0.81
5054C	4	0.238	6.05	0.032	0.81
5056C	6	0.280	7.11	0.032	0.81
5058C	8	0.302	7.67	0.032	0.81
5060C	10	0.348	8.84	0.032	0.81
5060/15C	15	0.391	9.93	0.032	0.81
5060/20C	20	0.437	11.10	0.032	0.81
5060/25C	25	0.488	12.40	0.032	0.81
5060/30C	30	0.517	13.13	0.032	0.81
5060/40C	40	0.622	15.80	0.053	1.35
5060/50C	50	0.684	17.37	0.053	1.35

Xtra-Guard® 1

High Performance
300 V Unshielded, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5062/1C*	2	0.226	5.74	0.032	0.81
5062C	2	0.226	5.74	0.032	0.81
5063/1C*	3	0.238	6.05	0.032	0.81
5063C	3	0.238	6.05	0.032	0.81
5064C	4	0.259	6.58	0.032	0.81
5066C	6	0.307	7.80	0.032	0.81
5068C	8	0.332	8.43	0.032	0.81
5070C	10	0.384	9.75	0.032	0.81
5070/15C	15	0.433	11.00	0.032	0.81
5070/20C	20	0.484	12.29	0.032	0.81
5070/25C	25	0.542	13.77	0.032	0.81
5070/30C	30	0.617	15.67	0.053	1.35
5070/40C	40	0.688	17.48	0.053	1.35
5070/50C	50	0.758	19.25	0.053	1.35
5070/60C	60	0.881	22.38	0.083	2.11

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

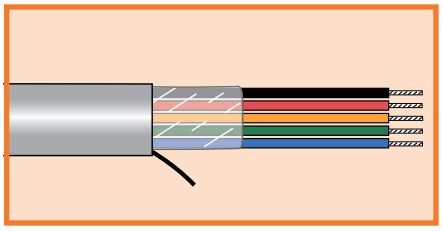
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5072/1C*	2	0.250	6.35	0.032	0.81
5072C	2	0.250	6.35	0.032	0.81
5073/1C*	3	0.264	6.71	0.032	0.81
5073C	3	0.264	6.71	0.032	0.81
5074C	4	0.288	7.32	0.032	0.81
5076C	6	0.343	8.71	0.032	0.81
5078C	8	0.372	9.45	0.032	0.81
5080C	10	0.432	10.97	0.032	0.81
5080/15C	15	0.488	12.40	0.032	0.81
5080/20C	20	0.547	13.89	0.053	0.81
5080/25C	25	0.656	16.66	0.053	0.81
5080/30C	30	0.694	17.63	0.053	0.81
5080/40C	40	0.775	19.69	0.083	2.11
5080/50C	50	0.917	23.29	0.083	2.11

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 1

High Performance
300 V Unshielded, Multiconductor



UL CM
UL AWM 2343 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

24 AWG (0.23 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5201C	7	0.263	6.68	0.063	1.60
5202C	12	0.313	7.95	0.063	1.60
5203C	15	0.333	8.46	0.063	1.60
5204C	19	0.350	8.89	0.063	1.60
5206C	37	0.438	11.13	0.063	1.60

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5210/2C	2	0.230	5.84	0.063	1.60
5211C	7	0.281	7.14	0.063	1.60
5212C	12	0.338	8.59	0.063	1.60
5213C	15	0.361	9.17	0.063	1.60
5214C	19	0.380	9.65	0.063	1.60
5214/25C	25	0.430	10.92	0.063	1.60
5215C	27	0.438	11.13	0.063	1.60
5216C	37	0.480	12.19	0.063	1.60

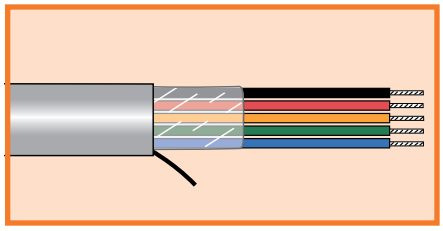
20 AWG (0.56 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5220/2C	2	0.246	6.25	0.063	1.60
5220C	5	0.288	7.32	0.063	1.60
5221C	7	0.305	7.75	0.063	1.60
5222C	12	0.371	9.42	0.063	1.60
5223C	15	0.398	10.11	0.063	1.60
5224C	19	0.420	10.67	0.063	1.60
5224/25C	25	0.478	12.14	0.063	1.60
5225C	27	0.487	12.37	0.063	1.60
5226C	37	0.536	13.61	0.063	1.60

Xtra-Guard® 1

High Performance
600 V Unshielded, Multiconductor



UL CM
UL AWM 2501 VW-1
UL MTW
CSA AWM I/II A/B FT4

Operating Temperature

- –30°C to +105°C
- –30°C to +90°C (MTW)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5402	2	0.318	8.08	0.063	1.60
5404	4	0.358	9.09	0.063	1.60
5405	5	0.385	9.78	0.063	1.60
5409	9	0.473	12.01	0.063	1.60
5409/19	19	0.601	15.27	0.063	1.60

20 AWG (0.56 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5413	3	0.350	8.89	0.063	1.60
5414	4	0.377	9.58	0.063	1.60
5419	9	0.503	12.78	0.063	1.60
5419/12	12	0.554	14.07	0.063	1.60
5419/15	15	0.601	15.27	0.063	1.60
5419/19	19	0.641	16.28	0.063	1.60
5419/25	25	0.742	18.85	0.063	1.60

18 AWG (0.81 mm²)

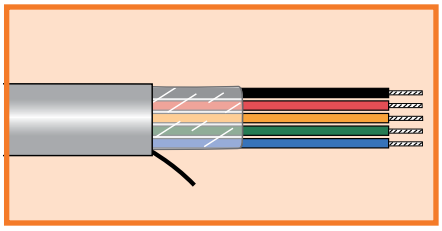
Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5422	2	0.352	8.94	0.063	1.60
5423	3	0.369	9.37	0.063	1.60
5424	4	0.399	10.13	0.063	1.60
5425	5	0.432	10.97	0.063	1.60
5427	7	0.466	11.84	0.063	1.60
5429	9	0.535	13.59	0.063	1.60
5429/15	15	0.643	16.33	0.063	1.60
5429/19	19	0.686	17.42	0.063	1.60
5429/25	25	0.796	20.22	0.063	1.60

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

Xtra-Guard® 1

High Performance
600 V Unshielded, Multiconductor



UL CM
UL AWM 2501 VW-1
UL MTW
CSA AWM I/II A/B FT4

Operating Temperature

- –30°C to +105°C
- –30°C to +90°C (MTW)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5434	4	0.428	10.87	0.063	1.60
5435	5	0.464	11.79	0.063	1.60
5437	7	0.502	12.75	0.063	1.60
5439	9	0.579	14.71	0.063	1.60
5439/12	12	0.641	16.28	0.063	1.60
5439/15	15	0.698	17.73	0.063	1.60
5439/19	19	0.746	18.95	0.083	2.11
5439/25	25	0.908	23.06	0.083	2.11

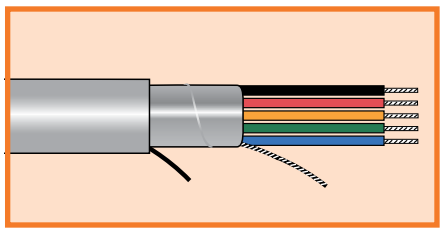
14 AWG (2.08 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5442	2	0.406	10.31	0.063	1.60
5443	3	0.428	10.87	0.063	1.60
5444	4	0.464	11.79	0.063	1.60
5445	5	0.505	12.83	0.063	1.60
5447	7	0.547	13.89	0.063	1.60
5449	9	0.634	16.10	0.063	1.60
5449/12	12	0.703	17.86	0.063	1.60
5449/15	15	0.767	19.48	0.063	1.60
5449/25	25	0.998	25.35	0.083	2.11

Xtra-Guard® 1

High Performance
300 V Foil Shielded, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.127 mm)
Insulation thickness: 0.010 (0.25 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5926	2	0.142	3.61	0.032	0.81
5927	3	0.148	3.76	0.032	0.81
5928	4	0.157	3.99	0.032	0.81
5929	6	0.178	4.52	0.032	0.81
5930	7	0.178	4.52	0.032	0.81
5931	8	0.189	4.80	0.032	0.81

26 AWG (0.14 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5674	2	0.150	3.81	0.032	0.81
5675	3	0.156	3.96	0.032	0.81
5676	4	0.166	4.22	0.032	0.81
5677	6	0.190	4.83	0.032	0.81
5678	7	0.190	4.83	0.032	0.81
5679	8	0.202	5.13	0.032	0.81
5680	10	0.228	5.79	0.032	0.81
5681	15	0.252	6.40	0.032	0.81

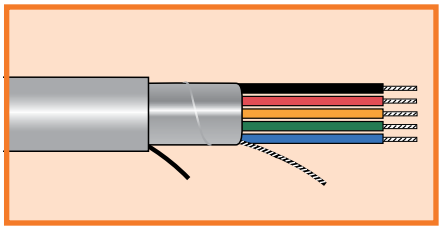
24 AWG (0.23 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5092C	2	0.160	4.06	0.032	0.81
5093C	3	0.167	4.24	0.032	0.81
5094C	4	0.179	4.55	0.032	0.81
5096C	6	0.205	5.21	0.032	0.81
5098C	8	0.219	5.56	0.032	0.81
5100C	10	0.248	6.30	0.032	0.81
5100/15C	15	0.275	6.99	0.032	0.81
5100/20C	20	0.304	7.72	0.032	0.81
5100/25C	25	0.336	8.53	0.032	0.81
5100/30C	30	0.354	8.99	0.032	0.81
5100/40C	40	0.394	10.01	0.032	0.81
5100/50C	50	0.433	11.00	0.032	0.81
5100/60C	60	0.468	11.89	0.032	0.81
5100/70C	70	0.505	12.83	0.032	0.81

Xtra-Guard® 1

High Performance
300 V Foil Shielded, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5192C	2	0.172	4.37	0.032	0.81
5193C	3	0.180	4.57	0.032	0.81
5194C	4	0.193	4.90	0.032	0.81
5196C	6	0.223	5.66	0.032	0.81
5198C	8	0.239	6.07	0.032	0.81
5199/10C	10	0.272	6.91	0.032	0.81
5199/15C	15	0.303	7.70	0.032	0.81
5199/20C	20	0.335	8.51	0.032	0.81
5199/25C	25	0.372	9.45	0.032	0.81
5199/30C	30	0.393	9.98	0.032	0.81
5199/40C	40	0.438	11.13	0.032	0.81
5199/50C	50	0.482	12.24	0.032	0.81
5199/60C	60	0.522	13.26	0.032	0.81
5199/70C	70	0.606	15.39	0.053	1.35

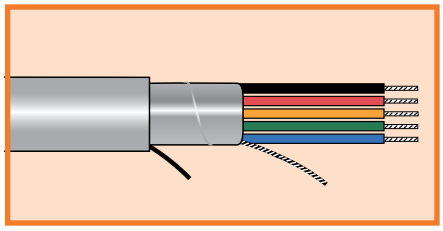
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5462C	2	0.212	5.38	0.032	0.81
5463C	3	0.223	5.66	0.032	0.81
5464C	4	0.242	6.15	0.032	0.81
5466C	6	0.284	7.21	0.032	0.81
5468C	8	0.306	7.77	0.032	0.81
5470C	10	0.352	8.94	0.032	0.81
5470/15C	15	0.395	10.03	0.032	0.81
5470/20C	20	0.441	11.20	0.032	0.81
5470/25C	25	0.492	12.50	0.032	0.81
5470/30C	30	0.521	13.23	0.032	0.81
5470/40C	40	0.626	15.90	0.053	1.35
5470/50C	50	0.688	17.48	0.053	1.35

Xtra-Guard® 1

High Performance
300 V Foil Shielded, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5382C	2	0.230	5.84	0.032	0.81
5382/1C*	2	0.230	5.84	0.032	0.81
5383C	3	0.242	6.15	0.032	0.81
5383/1C*	3	0.242	6.15	0.032	0.81
5384C	4	0.263	6.68	0.032	0.81
5386C	6	0.311	7.90	0.032	0.81
5388C	8	0.336	8.53	0.032	0.81
5390C	10	0.388	9.86	0.032	0.81
5390/15C	15	0.437	11.10	0.032	0.81
5390/20C	20	0.488	12.40	0.032	0.81
5390/25C	25	0.588	14.94	0.053	1.35
5390/30C	30	0.621	15.77	0.053	1.35
5390/40C	40	0.692	17.58	0.053	1.35
5390/50C	50	0.762	19.35	0.053	1.35
5390/60C	60	0.885	22.48	0.083	2.11

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

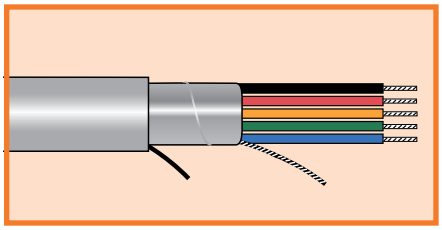
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5362C	2	0.254	6.45	0.032	0.81
5362/1C*	2	0.254	6.45	0.032	0.81
5363C	3	0.268	6.81	0.032	0.81
5363/1C*	3	0.268	6.81	0.032	0.81
5364C	4	0.292	7.42	0.032	0.81
5366C	6	0.347	8.81	0.032	0.81
5368C	8	0.376	9.55	0.032	0.81
5370C	10	0.436	11.07	0.032	0.81
5370/15C	15	0.492	12.50	0.032	0.81
5370/20C	20	0.593	15.06	0.053	1.35
5370/25C	25	0.660	16.76	0.053	1.35
5370/30C	30	0.698	17.73	0.053	1.35
5370/40C	40	0.779	19.79	0.083	2.11

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 1

High Performance
300 V Foil Shielded, Multiconductor



UL CM
UL AWM 2343 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

24 AWG (0.23 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5599/3C	3	0.229	5.82	0.063	1.60
5599/5C	5	0.254	6.45	0.063	1.60
5599/7C	7	0.267	6.78	0.063	1.60
5599/12C	12	0.317	8.05	0.063	1.60
5599/15C	15	0.337	8.56	0.063	1.60
5599/19C	19	0.354	8.99	0.063	1.60
5599/27C	27	0.405	10.29	0.063	1.60

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5580/2C	2	0.234	5.94	0.063	1.60
5580C	5	0.270	6.86	0.063	1.60
5581C	7	0.285	7.24	0.063	1.60
5582C	12	0.342	8.69	0.063	1.60
5583C	15	0.365	9.27	0.063	1.60
5584C	19	0.384	9.75	0.063	1.60
5586C	37	0.484	12.29	0.063	1.60

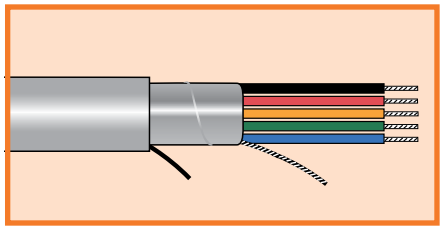
20 AWG (0.56 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5560/2C	2	0.250	6.35	0.063	1.60
5560C	5	0.292	7.42	0.063	1.60
5561C	7	0.309	7.85	0.063	1.60
5562C	12	0.375	9.53	0.063	1.60
5563C	15	0.402	10.21	0.063	1.60
5564C	19	0.424	10.77	0.063	1.60

Xtra-Guard® 1

High Performance
600 V Foil Shielded, Multiconductor



UL AWM 2501 VW-1
CSA AWM I/II A/B FT4
UL MTW

Operating Temperature

- –30°C to +105°C (AWM)
- –30°C to +90°C (MTW)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5410/2	2	0.322	8.18	0.063	1.60
5410/3	3	0.337	8.56	0.063	1.60
5410/4	4	0.362	9.19	0.063	1.60
5410/5	5	0.389	9.88	0.063	1.60
5410/9	9	0.477	12.12	0.063	1.60
5410/12	12	0.525	13.34	0.063	1.60

20 AWG (0.56 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5420/3	3	0.354	8.99	0.063	1.60
5420/4	4	0.381	9.68	0.063	1.60
5420/5	5	0.411	10.44	0.063	1.60
5420/7	7	0.442	11.23	0.063	1.60
5420/9	9	0.507	12.88	0.063	1.60
5420/12	12	0.558	14.17	0.063	1.60

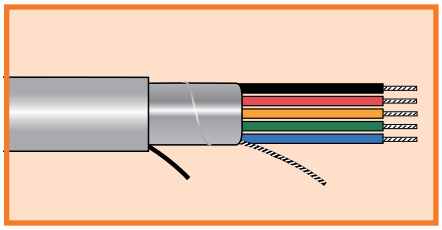
18 AWG (0.81 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5430/2	2	0.356	9.04	0.063	1.60
5430/3	3	0.373	9.47	0.063	1.60
5430/4	4	0.403	10.24	0.063	1.60
5430/5	5	0.436	11.07	0.063	1.60
5430/7	7	0.470	11.94	0.063	1.60
5430/9	9	0.539	13.69	0.063	1.60
5430/12	12	0.595	15.11	0.063	1.60
5430/15	15	0.647	16.43	0.063	1.60
5430/19	19	0.690	17.53	0.063	1.60
5430/25	25	0.800	20.32	0.063	1.60

Xtra-Guard® 1

High Performance
600 V Foil Shielded, Multiconductor



UL AWM 2501 VW-1
CSA AWM I/II A/B FT4
UL MTW

Operating Temperature

- –30°C to +105°C (AWM)
- –30°C to +90°C (MTW)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5440/2	2	0.380	9.65	0.063	1.60
5440/3	3	0.399	10.13	0.063	1.60
5440/4	4	0.432	10.97	0.063	1.60
5440/5	5	0.468	11.89	0.063	1.60
5440/7	7	0.506	12.85	0.063	1.60
5440/9	9	0.583	14.81	0.063	1.60
5440/12	12	0.645	16.38	0.063	1.60
5440/15	15	0.702	17.83	0.063	1.60

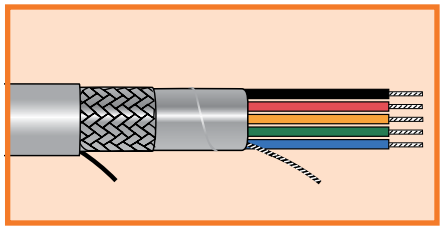
14 AWG (2.08 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5450/2	2	0.410	10.41	0.063	1.60
5450/3	3	0.432	10.97	0.063	1.60
5450/4	4	0.468	11.89	0.063	1.60
5450/5	5	0.509	12.93	0.063	1.60
5450/7	7	0.551	14.00	0.063	1.60
5450/12	12	0.707	17.96	0.063	1.60

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.127 mm)
Insulation thickness: 0.010 (0.25 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5932	2	0.166	4.22	0.032	0.81
5933	3	0.172	4.37	0.032	0.81
5934	4	0.181	4.60	0.032	0.81
5935	6	0.202	5.13	0.032	0.81
5936	7	0.202	5.13	0.032	0.81
5937	8	0.213	5.41	0.032	0.81

26 AWG (0.14 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5682	2	0.174	4.42	0.032	0.81
5683	3	0.180	4.57	0.032	0.81
5684	4	0.190	4.83	0.032	0.81
5685	6	0.214	5.44	0.032	0.81
5686	7	0.214	5.44	0.032	0.81
5687	8	0.226	5.74	0.032	0.81
5688	10	0.252	6.40	0.032	0.81
5689	15	0.276	7.01	0.032	0.81

24 AWG (0.23 mm²)

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

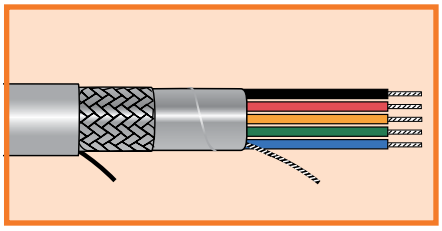
Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5112C	2	0.184	4.67	0.032	0.81
5113C	3	0.191	4.85	0.032	0.81
5114C	4	0.203	5.16	0.032	0.81
5116C	6	0.229	5.82	0.032	0.81
5118C	8	0.243	6.17	0.032	0.81
5120C	10	0.272	6.91	0.032	0.81
5120/15C	15	0.299	7.59	0.032	0.81
5120/20C	20	0.328	8.33	0.032	0.81
5120/25C	25	0.360	9.14	0.032	0.81
5120/30C	30	0.378	9.60	0.032	0.81
5120/40C	40	0.418	10.62	0.032	0.81
5120/50C	50	0.457	11.61	0.032	0.81

RoHS Compliant CA PROP 65

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

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5102C	2	0.196	4.98	0.032	0.81
5103C	3	0.204	5.18	0.032	0.81
5104C	4	0.217	5.51	0.032	0.81
5106C	6	0.247	6.27	0.032	0.81
5108C	8	0.263	6.68	0.032	0.81
5110C	10	0.296	7.52	0.032	0.81
5110/15C	15	0.327	8.31	0.032	0.81
5110/20C	20	0.359	9.12	0.032	0.81
5110/25C	25	0.396	10.06	0.032	0.81
5110/30C	30	0.417	10.59	0.032	0.81
5110/40C	40	0.462	11.73	0.032	0.81
5110/50C	50	0.506	12.85	0.032	0.81
5110/60C	60	0.588	14.94	0.053	1.35
5110/70C	70	0.630	16.00	0.053	1.35
5110/80C	80	0.665	16.89	0.053	1.35

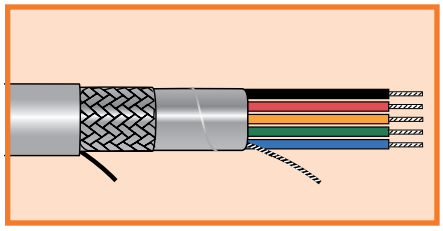
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5152C	2	0.236	5.99	0.032	0.81
5153C	3	0.247	6.27	0.032	0.81
5154C	4	0.266	6.76	0.032	0.81
5156C	6	0.308	7.82	0.032	0.81
5158C	8	0.330	8.38	0.032	0.81
5160C	10	0.376	9.55	0.032	0.81
5160/15C	15	0.419	10.64	0.032	0.81
5160/20C	20	0.465	11.81	0.032	0.81
5160/25C	25	0.516	13.11	0.032	0.81
5160/30C	30	0.545	13.84	0.032	0.81
5160/40C	40	0.656	16.66	0.053	1.35
5160/50C	50	0.718	18.24	0.053	1.35
5160/60C	60	0.774	19.66	0.053	1.35

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multiconductor



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5162/1C*	2	0.254	6.45	0.032	0.81
5162C	2	0.254	6.45	0.032	0.81
5163/1C*	3	0.266	6.76	0.032	0.81
5163C	3	0.266	6.76	0.032	0.81
5164C	4	0.287	7.29	0.032	0.81
5166C	6	0.335	8.51	0.032	0.81
5168C	8	0.360	9.14	0.032	0.81
5170C	10	0.412	10.46	0.032	0.81
5170/15C	15	0.461	11.71	0.032	0.81
5170/20C	20	0.512	13.00	0.032	0.81
5170/25C	25	0.612	15.54	0.053	1.35
5170/30C	30	0.651	16.54	0.053	1.35
5170/40C	40	0.722	18.34	0.053	1.35

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

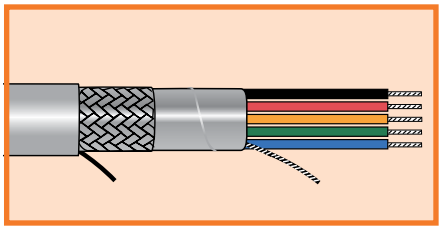
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5172/1C*	2	0.278	7.06	0.032	0.81
5172C	2	0.278	7.06	0.032	0.81
5173/1C*	3	0.292	7.42	0.032	0.81
5173C	3	0.292	7.42	0.032	0.81
5174C	4	0.316	8.03	0.032	0.81
5176C	6	0.371	9.42	0.032	0.81
5178C	8	0.400	10.16	0.032	0.81
5180C	10	0.460	11.68	0.032	0.81
5180/15C	15	0.516	13.11	0.032	0.81
5180/20C	20	0.617	15.67	0.053	1.35
5180/25C	25	0.690	17.53	0.053	1.35

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multiconductor



UL CM
UL AWM 2343 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

24 AWG (0.23 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5300C	5	0.278	7.06	0.063	1.60
5301C	7	0.291	7.39	0.063	1.60
5302C	12	0.341	8.66	0.063	1.60
5303C	15	0.361	9.17	0.063	1.60
5304C	19	0.378	9.60	0.063	1.60
5305C	27	0.429	10.90	0.063	1.60
5306C	37	0.466	11.84	0.063	1.60
5307C	48	0.517	13.13	0.063	1.60

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5310C	5	0.294	7.47	0.063	1.60
5311C	7	0.309	7.85	0.063	1.60
5312C	12	0.366	9.30	0.063	1.60
5313C	15	0.389	9.88	0.063	1.60
5314C	19	0.408	10.36	0.063	1.60
5316C	37	0.508	12.90	0.063	1.60
5318C	60	0.608	15.44	0.063	1.60

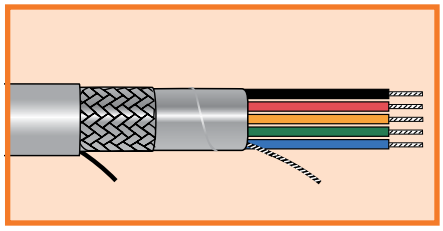
20 AWG (0.56 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
5320/4C	4	0.299	7.59	0.063	1.60
5320C	5	0.316	8.03	0.063	1.60
5321C	7	0.333	8.46	0.063	1.60
5322C	12	0.399	10.13	0.063	1.60
5323C	15	0.426	10.82	0.063	1.60
5324C	19	0.448	11.38	0.063	1.60
5325C	27	0.515	13.08	0.063	1.60
5326C	37	0.564	14.33	0.063	1.60

Xtra-Guard® 1

High Performance
600 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 2501 VW-1
CSA AWM I/II A/B FT4
UL MTW

Operating Temperature

- –30°C to +105°C (AWM)
- –30°C to +90°C (MTW)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5504	4	0.386	9.80	0.063	1.60
5507	7	0.442	11.23	0.063	1.60
5509/12	12	0.549	13.94	0.063	1.60

20 AWG (0.56 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5514	4	0.405	10.29	0.063	1.60
5517	7	0.466	11.84	0.063	1.60
5519	9	0.531	13.49	0.063	1.60
5519/12	12	0.582	14.78	0.063	1.60
5519/19	19	0.675	17.15	0.063	1.60

18 AWG (0.81 mm²)

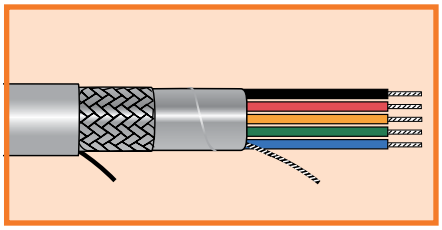
Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5522	2	0.380	9.65	0.063	1.60
5523	3	0.397	10.08	0.063	1.60
5524	4	0.427	10.85	0.063	1.60
5525	5	0.460	11.68	0.063	1.60
5527	7	0.494	12.55	0.063	1.60
5529	9	0.563	14.30	0.063	1.60
5529/12	12	0.619	15.72	0.063	1.60
5529/15	15	0.677	17.20	0.063	1.60
5529/19	19	0.760	19.30	0.083	2.11

RoHS Compliant CA PROP 65

Xtra-Guard® 1

High Performance
600 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 2501 VW-1
CSA AWM I/II A/B FT4
UL MTW

Operating Temperature

- –30°C to +105°C (AWM)
- –30°C to +90°C (MTW)

Conductor Color Coding

- Chart E (page 532)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5532	2	0.404	10.26	0.063	1.60
5533	3	0.423	10.74	0.063	1.60
5534	4	0.456	11.58	0.063	1.60
5535	5	0.492	12.50	0.063	1.60
5537	7	0.530	13.46	0.063	1.60
5539	9	0.607	15.42	0.063	1.60
5539/12	12	0.675	17.15	0.063	1.60
5539/15	15	0.772	19.61	0.063	1.60
5539/19	19	0.820	20.83	0.083	2.11

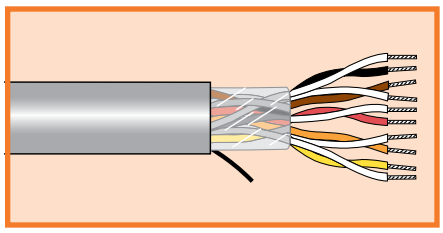
14 AWG (2.08 mm²)

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

Part Number	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5542	2	0.434	11.02	0.063	1.60
5543	3	0.456	11.58	0.063	1.60
5544	4	0.492	12.50	0.063	1.60
5547	7	0.575	14.61	0.063	1.60
5549	9	0.668	16.97	0.063	1.60
5549/12	12	0.777	19.74	0.083	2.11
5549/15	15	0.841	21.36	0.083	2.11

Xtra-Guard® 1

High Performance
300 V Unshielded, Multipair



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5261C	1	0.156	3.96	0.032	0.81
5262C	2	0.212	5.38	0.032	0.81
5263C	3	0.224	5.69	0.032	0.81
5264C	4	0.243	6.17	0.032	0.81
5265C	5	0.264	6.71	0.032	0.81
5266C	6	0.286	7.26	0.032	0.81
5269C	9	0.332	8.43	0.032	0.81
5269/11C	11	0.357	9.07	0.032	0.81
5269/15C	15	0.401	10.19	0.032	0.81
5269/27C	27	0.512	13.00	0.032	0.81
5269/77C	77	0.904	22.96	0.083	0.81

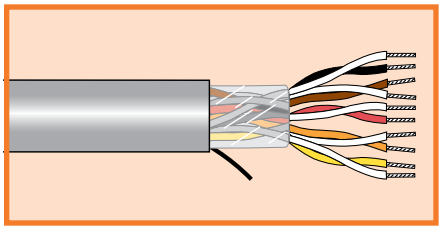
22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5021C	1	0.168	4.27	0.032	0.81
5022C	2	0.232	5.89	0.032	0.81
5023C	3	0.245	6.22	0.032	0.81
5024C	4	0.267	6.78	0.032	0.81
5025C	5	0.291	7.39	0.032	0.81
5026C	6	0.316	8.03	0.032	0.81
5029/15C	15	0.447	11.35	0.032	0.81

Xtra-Guard® 1

High Performance
300 V Unshielded, Multipair



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5282C	2	0.298	7.57	0.032	0.81
5283C	3	0.316	8.03	0.032	0.81
5286C	6	0.415	10.54	0.032	0.81
5289C	9	0.487	12.37	0.032	0.81
5289/12C	12	0.545	13.84	0.032	0.81

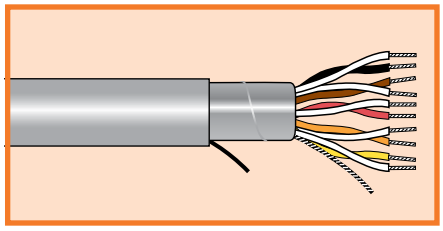
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5032C	2	0.327	8.31	0.032	0.81
5033C	3	0.348	8.84	0.032	0.81
5036C	6	0.460	11.68	0.032	0.81
5039C	9	0.541	13.74	0.053	1.35
5039/12C	12	0.648	16.46	0.053	1.35

Xtra-Guard® 1

High Performance
300 V Foil Shield, Multipair



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.12 mm)
Insulation Thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5938	2	0.187	4.75	0.032	0.81
5939	3	0.196	4.98	0.032	0.81
5940	4	0.211	5.36	0.032	0.81
5941	5	0.228	5.79	0.032	0.81
5942	6	0.246	6.25	0.032	0.81

26 AWG (0.14 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5690	2	0.200	5.08	0.032	0.81
5691	3	0.210	5.33	0.032	0.81
5692	4	0.227	5.77	0.032	0.81
5693	5	0.246	6.25	0.032	0.81
5694	6	0.265	6.73	0.032	0.81

24 AWG (0.23 mm²)

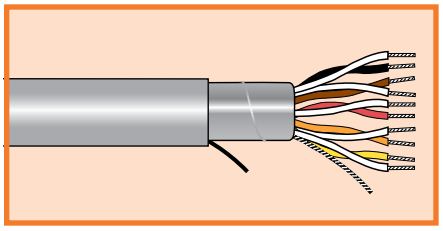
Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5491C	1	0.160	4.06	0.032	0.81
5492C	2	0.216	5.49	0.032	0.81
5493C	3	0.228	5.79	0.032	0.81
5494C	4	0.247	6.27	0.032	0.81
5495C	5	0.268	6.81	0.032	0.81
5496C	6	0.290	7.37	0.032	0.81
5499C	9	0.336	8.53	0.032	0.81
5499/11C	11	0.361	9.17	0.032	0.81
5499/15C	15	0.405	10.29	0.032	0.81
5499/19C	19	0.433	11.00	0.032	0.81
5499/27C	27	0.516	13.11	0.32	0.81

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

Xtra-Guard® 1

High Performance
300 V Foil Shield, Multipair



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5481C	1	0.172	4.37	0.032	0.81
5482C	2	0.236	5.99	0.032	0.81
5483C	3	0.249	6.32	0.032	0.81
5484C	4	0.271	6.88	0.032	0.81
5485C	5	0.295	7.49	0.032	0.81
5486C	6	0.320	8.13	0.032	0.81
5489C	9	0.372	9.45	0.032	0.81
5489/11C	11	0.400	10.16	0.032	0.81
5489/15C	15	0.451	11.46	0.032	0.81
5489/19C	19	0.483	12.27	0.032	0.81
5489/27C	27	0.619	15.72	0.053	1.35

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5452C	2	0.302	7.67	0.032	0.81
5453C	3	0.320	8.13	0.032	0.81
5456C	6	0.419	10.64	0.032	0.81
5459C	9	0.491	12.47	0.032	0.81
5459/12C	12	0.549	13.94	0.032	0.81
5459/19C	19	0.689	17.50	0.053	1.35

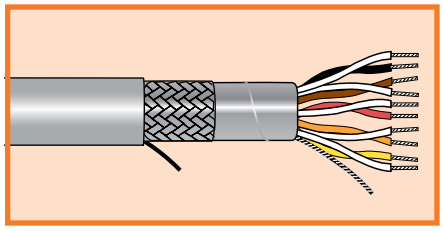
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5373C	3	0.352	8.94	0.032	0.81
5376C	6	0.464	11.79	0.032	0.81

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multipair



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.12 mm)
Insulation Thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5943	2	0.211	5.36	0.032	0.81
5944	3	0.220	5.59	0.032	0.81
5945	4	0.235	5.97	0.032	0.81
5946	5	0.252	6.40	0.032	0.81
5947	6	0.270	6.86	0.032	0.81

26 AWG (0.14 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5695	2	0.224	5.69	0.032	0.81
5696	3	0.234	5.94	0.032	0.81
5697	4	0.251	6.38	0.032	0.81
5698	5	0.270	6.86	0.032	0.81
5699	6	0.289	7.34	0.032	0.81

24 AWG (0.23 mm²)

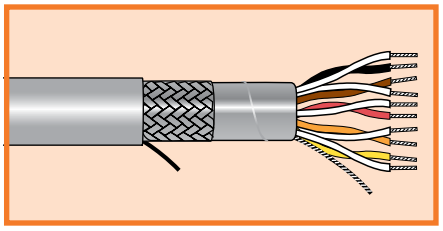
Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5271C	1	0.184	4.67	0.032	0.81
5272C	2	0.240	6.10	0.032	0.81
5273C	3	0.252	6.40	0.032	0.81
5274C	4	0.271	6.88	0.032	0.81
5275C	5	0.292	7.42	0.032	0.81
5276C	6	0.314	7.98	0.032	0.81
5279C	9	0.360	9.14	0.032	0.81
5279/11C	11	0.385	9.78	0.032	0.81
5279/15C	15	0.429	10.90	0.032	0.81
5279/19C	19	0.457	11.61	0.032	0.81
5279/27C	27	0.540	13.72	0.032	0.81
5279/51C	51	0.739	18.77	0.053	1.35

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

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multipair



UL CM
UL AWM 2464 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- 28, 26, 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5121C	1	0.196	4.98	0.032	0.81
5122C	2	0.260	6.60	0.032	0.81
5123C	3	0.273	6.93	0.032	0.81
5124C	4	0.295	7.49	0.032	0.81
5125C	5	0.319	8.10	0.032	0.81
5126C	6	0.344	8.74	0.032	0.81
5129C	9	0.396	10.06	0.032	0.81
5129/11C	11	0.424	10.77	0.032	0.81
5129/15C	15	0.475	12.07	0.032	0.81
5129/19C	19	0.507	12.88	0.032	0.81
5129/27C	27	0.649	16.48	0.053	1.35

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5292C	2	0.326	8.28	0.032	0.81
5293C	3	0.344	8.74	0.032	0.81
5296C	6	0.443	11.25	0.032	0.81
5299C	9	0.515	13.08	0.032	0.81
5299/19C	19	0.719	18.26	0.053	1.35

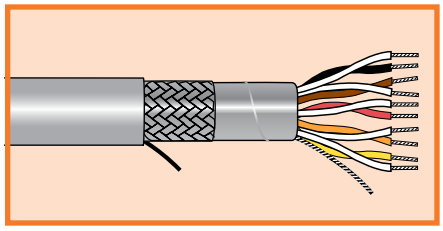
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5132C	2	0.355	9.02	0.032	0.81
5133C	3	0.376	9.55	0.032	0.81
5136C	6	0.488	12.40	0.032	0.81
5139C	9	0.611	15.52	0.053	1.35
5139/27C	27	1.004	25.50	0.083	2.11

Xtra-Guard® 1

High Performance
300 V Supra-Shield® Foil/Braid, Multipair



UL CM
UL AWM 2343 VW-1
CSA CMG FT4

Operating Temperature

- –30°C to +80°C (AWM)
- –30°C to +105°C (CM)

Conductor Color Coding

- Chart B (page 528)
- Jacket Colors
  - Put-ups: slate
  - Bulk: nine colors available (page 31, minimums may apply)

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord
- Premium PVC jacket
- UV resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-221: General-purpose, cross-linked polyolefin (indoor)
- FIT-321: Medium-wall, adhesive-lined, cross-linked polyolefin (outdoor)

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5330C	5	0.354	8.99	0.063	1.60
5331C	7	0.376	9.55	0.063	1.60
5332C	12	0.458	11.63	0.063	1.60
5333C	15	0.491	12.47	0.063	1.60
5334C	19	0.519	13.18	0.063	1.60
5335C	27	0.602	15.29	0.063	1.60
5336C	37	0.669	16.99	0.063	1.60

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5340/2C	2	0.322	8.18	0.063	1.60
5340C	5	0.381	9.68	0.063	1.60
5341C	7	0.406	10.31	0.063	1.60
5342C	12	0.499	12.67	0.063	1.60
5344C	19	0.569	14.45	0.063	1.60
5345C	27	0.669	16.99	0.063	1.60
5346C	37	0.738	18.75	0.063	1.60

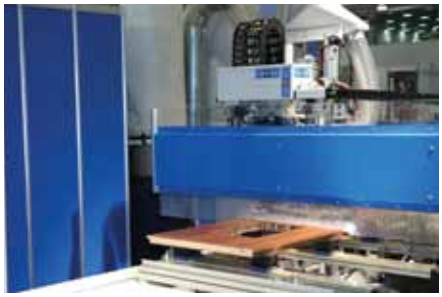
20 AWG (0.56 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5350/4C	4	0.388	9.86	0.063	1.60
5350C	5	0.416	10.57	0.063	1.60
5351C	7	0.446	11.33	0.063	1.60
5351/9C	9	0.505	12.83	0.063	1.60
5353C	15	0.597	15.16	0.063	1.60
5354C	19	0.634	16.10	0.063	1.60
5355C	27	0.749	19.02	0.063	1.60

Xtra-Guard® 2

Oil and Abrasion Resistant



Features

- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- Specially formulated, rugged polyurethane jacket offering three times the tear and abrasion resistance of ordinary PVC
- Resistance to cut-through and physical damage
- 300 V and 600 V
- Unshielded, foil shielded, or Supra-Shield® foil/braid
- Temperature ratings to 90°C (300 V) and 105°C (600 V)
- Superior low-temperature flexibility to -30°C
- Outstanding ultraviolet light stability in all jacket colors
- UL VW-1 and CSA FT-1 flammability ratings
- Nylon ripcord for easy jacket stripping

Applications

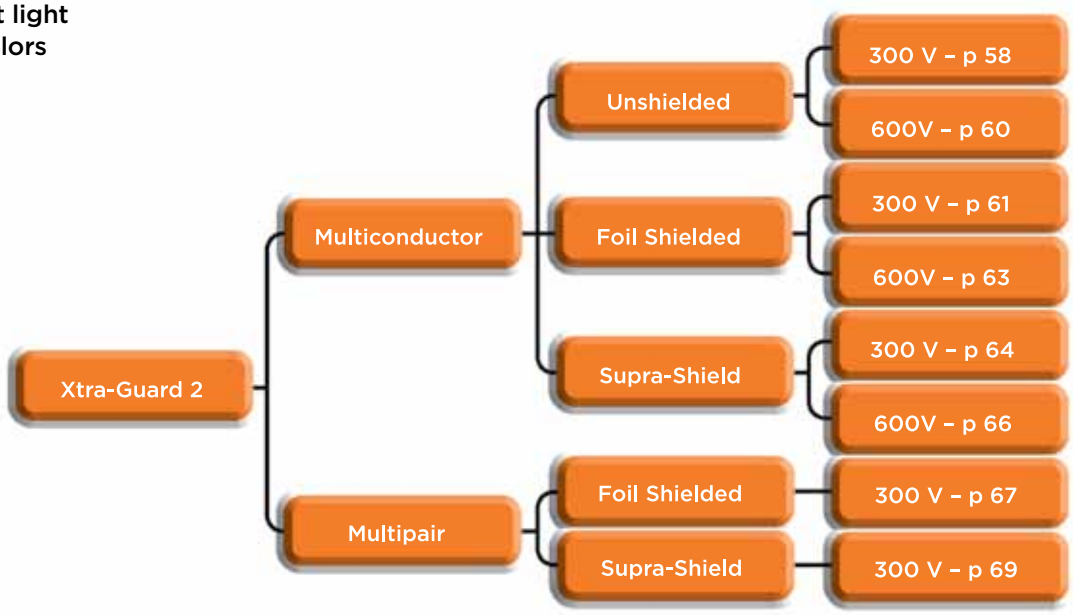
- CNC machine centers
- Automotive assembly plant operations
- Military ground support systems
- Packaging machinery
- Petrochemical plant operations
- Geophysical exploration equipment

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

SLATE	BEIGE	WHITE
RED	BLACK	BLUE
GREEN	YELLOW	ORANGE

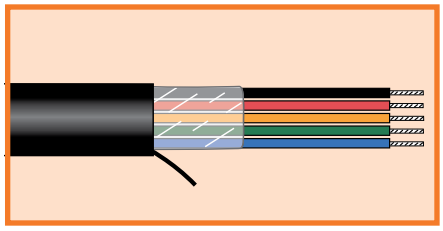
Xtra-Guard cables are available in a range of long-lasting colors for fast, easy identification, for safety reasons, and for matching the color of your system.



RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Unshielded, Multiconductor



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25012	2	0.156	3.96	0.032	0.81
25013	3	0.163	4.14	0.032	0.81
25014	4	0.175	4.45	0.032	0.81
25016	6	0.201	5.11	0.032	0.81
25018	8	0.215	5.46	0.032	0.81
25020	10	0.244	6.20	0.032	0.81
25020/15	15	0.271	6.88	0.032	0.81
25020/20	20	0.300	7.62	0.032	0.81
25020/25	25	0.332	8.43	0.032	0.81

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25002	2	0.168	4.27	0.032	0.81
25003	3	0.176	4.47	0.032	0.81
25004	4	0.189	4.80	0.032	0.81
25006	6	0.219	5.56	0.032	0.81
25008	8	0.235	5.97	0.032	0.81
25010	10	0.268	6.81	0.032	0.81
25010/15	15	0.299	7.59	0.032	0.81
25010/20	20	0.331	8.41	0.032	0.81
25010/25	25	0.368	9.35	0.032	0.81

20 AWG (0.56 mm²)

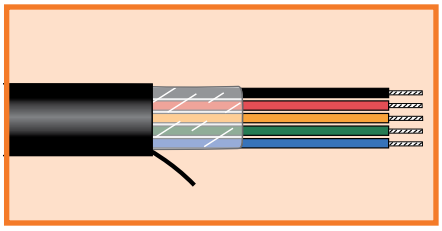
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25052	2	0.208	5.28	0.032	0.81
25053	3	0.219	5.56	0.032	0.81
25054	4	0.238	6.05	0.032	0.81
25056	6	0.280	7.11	0.032	0.81
25058	8	0.302	7.67	0.032	0.81
25060	10	0.348	8.84	0.032	0.81
25060/15	15	0.391	9.93	0.032	0.81
25060/20	20	0.437	11.10	0.032	0.81
25060/25	25	0.488	12.40	0.032	0.81
25060/30	30	0.517	13.13	0.032	0.81
25060/40	40	0.622	15.80	0.053	1.35
25060/50	50	0.684	17.37	0.053	1.35
25060/60	60	0.740	18.80	0.053	1.35
25060/70	70	0.859	21.82	0.053	1.35

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

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Unshielded, Multiconductor



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25062	2	0.226	5.74	0.032	0.81
25062/1*	2	0.226	5.74	0.032	0.81
25063	3	0.238	6.05	0.032	0.81
25063/1*	3	0.238	6.05	0.032	0.81
25064	4	0.259	6.58	0.032	0.81
25066	6	0.307	7.80	0.032	0.81
25068	8	0.332	8.43	0.032	0.81
25070	10	0.384	9.75	0.032	0.81
25070/15	15	0.433	11.00	0.032	0.81
25070/20	20	0.484	12.29	0.032	0.81
25070/25	25	0.542	13.77	0.032	0.81

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

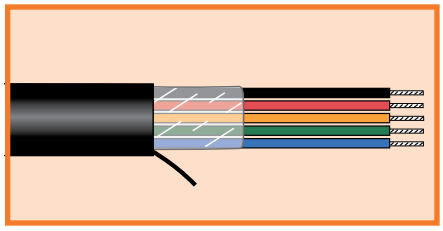
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25072	2	0.250	6.35	0.032	0.81
25072/1*	2	0.250	6.35	0.032	0.81
25073	3	0.264	6.71	0.032	0.81
25073/1*	3	0.264	6.71	0.032	0.81
25074	4	0.288	7.32	0.032	0.81
25076	6	0.343	8.71	0.032	0.81
25078	8	0.372	9.45	0.032	0.81
25080	10	0.432	10.97	0.032	0.81
25080/15	15	0.488	12.40	0.032	0.81
25080/20	20	0.547	13.89	0.053	1.35
25080/25	25	0.656	16.66	0.053	1.35

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 2

Oil and Abrasion Resistant
600 V Unshielded, Multiconductor



UL AWM 20952 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +105°C

Conductor Color Coding

- Chart E (page 532)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25422	2	0.352	8.94	0.063	1.60
25423	3	0.369	9.37	0.063	1.60
25424	4	0.399	10.13	0.063	1.60
25427	7	0.466	11.84	0.063	1.60
25429	9	0.535	13.59	0.063	1.60
25429/12	12	0.591	15.01	0.063	1.60

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25432	2	0.376	9.55	0.063	1.60
25433	3	0.395	10.03	0.063	1.60
25434	4	0.428	10.87	0.063	1.60
25435	5	0.464	11.79	0.063	1.60
25439	9	0.579	14.71	0.063	1.60
25439/12	12	0.641	16.28	0.063	1.60
25439/19	19	0.746	18.95	0.083	2.11

14 AWG (2.08 mm²)

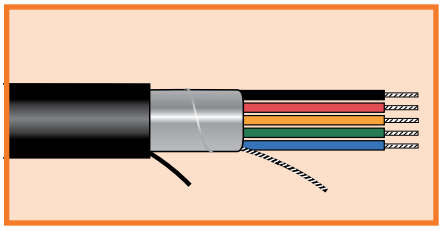
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25442	2	0.406	10.31	0.063	1.60
25443	3	0.428	10.87	0.063	1.60
25444	4	0.464	11.79	0.063	1.60
25445	5	0.505	12.83	0.063	1.60
25449	9	0.634	16.10	0.063	1.60
25449/12	12	0.703	17.86	0.063	1.60

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Foil Shielded, Multiconductor



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Aluminum/polyester/aluminum foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25092	2	0.160	4.06	0.032	0.81
25093	3	0.167	4.24	0.032	0.81
25094	4	0.179	4.55	0.032	0.81
25096	6	0.205	5.21	0.032	0.81
25098	8	0.219	5.56	0.032	0.81
25100	10	0.248	6.30	0.032	0.81
25100/15	15	0.275	6.99	0.032	0.81
25100/20	20	0.304	7.72	0.032	0.81
25100/25	25	0.336	8.53	0.032	0.81

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25192	2	0.172	4.37	0.032	0.81
25193	3	0.180	4.57	0.032	0.81
25194	4	0.193	4.90	0.032	0.81
25196	6	0.223	5.66	0.032	0.81
25198	8	0.239	6.07	0.032	0.81
25199/10	10	0.272	6.91	0.032	0.81
25199/15	15	0.303	7.70	0.032	0.81
25199/20	20	0.335	8.51	0.032	0.81
25199/25	25	0.372	9.45	0.032	0.81
25199/30	30	0.393	9.98	0.032	0.81
25199/40	40	0.438	11.13	0.032	0.81
25199/50	50	0.482	12.24	0.032	0.81

20 AWG (0.56 mm²)

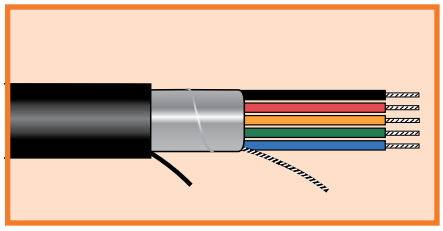
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25462	2	0.212	5.38	0.032	0.81
25463	3	0.223	5.66	0.032	0.81
25464	4	0.242	6.15	0.032	0.81
25466	6	0.284	7.21	0.032	0.81
25468	8	0.306	7.77	0.032	0.81
25470	10	0.352	8.94	0.032	0.81
25470/15	15	0.395	10.03	0.032	0.81
25470/20	20	0.441	11.20	0.032	0.81
25470/25	25	0.492	12.50	0.032	0.81
25470/30	30	0.521	13.23	0.032	0.81
25470/40	40	0.626	15.90	0.053	1.35
25470/50	50	0.688	17.48	0.053	1.35

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant 300 V Foil Shielded, Multiconductor



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Aluminum/polyester/aluminum foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25382	2	0.230	5.84	0.032	0.81
25382/1*	2	0.230	5.84	0.032	0.81
25383	3	0.242	6.14	0.032	0.81
25383/1*	3	0.242	6.14	0.032	0.81
25384	4	0.263	6.68	0.032	0.81
25386	6	0.311	7.90	0.032	0.81
25388	8	0.336	8.53	0.032	0.81
25390	10	0.388	9.86	0.032	0.81
25390/15	15	0.437	11.10	0.032	0.81
25390/20	20	0.488	12.40	0.032	0.81
25390/25	25	0.588	14.94	0.053	1.35
25390/30	30	0.621	15.77	0.053	1.35
25390/40	40	0.692	17.58	0.053	1.35
25390/50	50	0.762	19.35	0.053	1.35

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

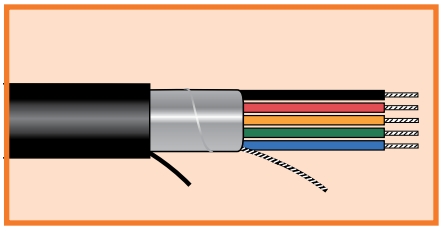
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25362	2	0.254	6.45	0.032	0.81
25362/1*	2	0.254	6.45	0.032	0.81
25363	3	0.268	6.81	0.032	0.81
25363/1*	3	0.268	6.81	0.032	0.81
25364	4	0.292	7.42	0.032	0.81
25366	6	0.347	8.81	0.032	0.81
25368	8	0.376	9.55	0.032	0.81
25370	10	0.436	11.07	0.032	0.81
25370/15	15	0.492	12.50	0.032	0.81
25370/20	20	0.593	15.06	0.053	1.35
25370/25	25	0.660	16.76	0.053	1.35
25370/30	30	0.698	17.73	0.053	1.35
25370/40	40	0.779	19.79	0.083	2.11
25370/50	50	0.921	23.39	0.083	2.11

*Conductors color-coded per international standards: brown, blue, green/yellow.

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
600 V Foil Shielded, Multiconductor



UL AWM 20952 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +105°C

Conductor Color Coding

- Chart E (page 532)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Aluminum/polyester/aluminum foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25430/2	2	0.356	9.04	0.063	1.60
25430/3	3	0.373	9.47	0.063	1.60
25430/4	4	0.403	10.24	0.063	1.60
25430/5	5	0.436	11.07	0.063	1.60
25430/7	7	0.470	11.94	0.063	1.60
25430/9	9	0.539	13.69	0.063	1.60
25430/12	12	0.595	15.11	0.063	1.60
25430/15	15	0.647	16.43	0.063	1.60
25430/19	19	0.690	17.53	0.063	1.60

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25440/2	2	0.380	9.65	0.063	1.60
25440/3	3	0.399	10.13	0.063	1.60
25440/4	4	0.432	10.97	0.063	1.60
25440/5	5	0.468	11.89	0.063	1.60
25440/7	7	0.506	12.85	0.063	1.60
25440/9	9	0.583	14.81	0.063	1.60
25440/12	12	0.645	16.38	0.063	1.60
25440/15	15	0.702	17.83	0.063	1.60

14 AWG (2.08 mm²)

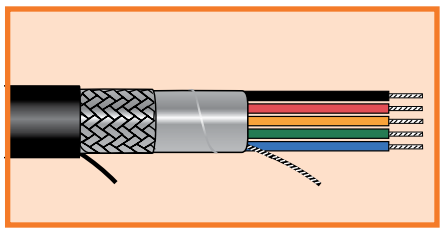
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25450/2	2	0.410	10.41	0.063	1.60
25450/3	3	0.432	10.97	0.063	1.60
25450/4	4	0.468	11.89	0.063	1.60
25450/5	5	0.509	12.93	0.063	1.60
25450/7	7	0.551	14.00	0.063	1.60
25450/9	9	0.638	16.21	0.063	1.60
25450/12	12	0.707	17.96	0.063	1.60
25450/15	15	0.771	19.58	0.063	1.60

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- -30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25112	2	0.184	4.67	0.032	0.81
25113	3	0.191	4.85	0.032	0.81
25114	4	0.203	5.16	0.032	0.81
25116	6	0.229	5.82	0.032	0.81
25118	8	0.243	6.17	0.032	0.81
25120	10	0.272	6.91	0.032	0.81
25120/15	15	0.299	7.59	0.032	0.81
25120/20	20	0.328	8.33	0.032	0.81
25120/25	25	0.360	9.14	0.032	0.81
25120/30	30	0.378	9.60	0.032	0.81
25120/40	40	0.418	10.62	0.032	0.81
25120/50	50	0.457	11.61	0.032	0.81

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25102	2	0.196	4.97	0.032	0.81
25103	3	0.204	5.18	0.032	0.81
25104	4	0.217	5.51	0.032	0.81
25106	6	0.247	6.27	0.032	0.81
25108	8	0.263	6.68	0.032	0.81
25110	10	0.296	7.52	0.032	0.81
25110/15	15	0.327	8.31	0.032	0.81
25110/20	20	0.359	9.12	0.032	0.81
25110/25	25	0.396	10.06	0.032	0.81
25110/30	30	0.417	10.59	0.032	0.81
25110/40	40	0.462	11.73	0.032	0.81
25110/50	50	0.506	12.85	0.032	0.81

20 AWG (0.56 mm²)

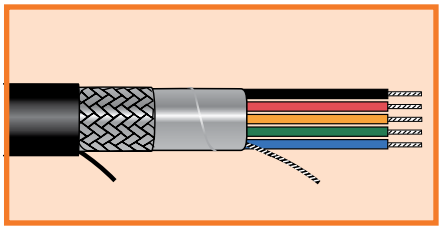
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25152	2	0.236	5.99	0.032	0.81
25153	3	0.247	6.27	0.032	0.81
25154	4	0.266	6.76	0.032	0.81
25156	6	0.308	7.82	0.032	0.81
25158	8	0.330	8.38	0.032	0.81
25160	10	0.376	9.55	0.032	0.81
25160/15	15	0.419	10.64	0.032	0.81
25160/20	20	0.465	11.81	0.032	0.81
25160/25	25	0.516	13.11	0.032	0.81
25160/30	30	0.545	13.84	0.032	0.81
25160/40	40	0.656	16.66	0.053	1.35
25160/50	50	0.718	18.24	0.053	1.35

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25162	2	0.254	6.45	0.032	0.81
25162/1*	2	0.254	6.45	0.032	0.81
25163	3	0.266	6.76	0.032	0.81
25163/1*	3	0.266	6.76	0.032	0.81
25164	4	0.287	7.29	0.032	0.81
25166	6	0.335	8.51	0.032	0.81
25168	8	0.360	9.14	0.032	0.81
25170	10	0.412	10.46	0.032	0.81
25170/15	15	0.461	11.71	0.032	0.81
25170/20	20	0.512	13.00	0.032	0.81
25170/25	25	0.612	15.54	0.053	1.35
25170/30	30	0.651	16.54	0.053	1.35
25170/40	40	0.722	18.34	0.053	1.35

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

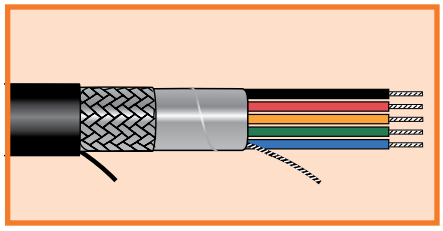
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25172	2	0.278	7.06	0.032	0.81
25172/1*	2	0.278	7.06	0.032	0.81
25173	3	0.292	7.42	0.032	0.81
25173/1*	3	0.292	7.42	0.032	0.81
25174	4	0.316	8.03	0.032	0.81
25176	6	0.371	9.42	0.032	0.81
25178	8	0.400	10.16	0.032	0.81
25180	10	0.460	11.68	0.032	0.81
25180/15	15	0.516	13.11	0.032	0.81
25180/20	20	0.617	15.67	0.053	1.35
25180/25	25	0.690	17.53	0.053	1.35
25180/30	30	0.728	18.49	0.053	1.35
25180/40	40	0.869	22.07	0.083	2.11

*Conductors color-coded per international standards: brown, blue, green/yellow.

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
600 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20952 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +105°C

Conductor Color Coding

- Chart E (page 532)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25522	2	0.380	9.65	0.063	1.60
25523	3	0.397	10.08	0.063	1.60
25524	4	0.427	10.85	0.063	1.60
25525	5	0.460	11.68	0.063	1.60
25527	7	0.494	12.55	0.063	1.60
25529	9	0.563	14.30	0.063	1.60

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25532	2	0.404	10.26	0.063	1.60
25533	3	0.423	10.74	0.063	1.60
25534	4	0.456	11.58	0.063	1.60
25535	5	0.492	12.50	0.063	1.60
25537	7	0.530	13.46	0.063	1.60
25539	9	0.607	15.42	0.063	1.60
25539/12	12	0.675	17.15	0.063	1.60
25539/15	15	0.772	19.61	0.083	2.11
25539/19	19	0.820	20.83	0.083	2.11

14 AWG (2.08 mm²)

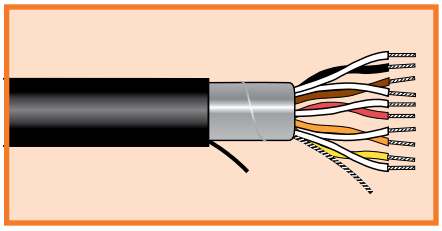
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25542	2	0.434	11.02	0.063	1.60
25543	3	0.456	11.58	0.063	1.60
25544	4	0.492	12.50	0.063	1.60
25545	5	0.533	13.54	0.063	1.60
25547	7	0.575	14.61	0.063	1.60
25549	9	0.668	16.97	0.063	1.60
25549/12	12	0.777	19.74	0.083	2.11

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant 300 V Foil Shield, Multipair



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Aluminum/polyester/aluminum foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25491	1	0.160	4.06	0.032	0.81
25492	2	0.216	5.48	0.032	0.81
25493	3	0.228	5.79	0.032	0.81
25494	4	0.247	6.27	0.032	0.81
25495	5	0.268	6.81	0.032	0.81
25496	6	0.290	7.37	0.032	0.81
25499	9	0.336	8.53	0.032	0.81
25499/11	11	0.361	9.17	0.032	0.81
25499/15	15	0.405	10.29	0.032	0.81
25499/19	19	0.433	11.00	0.032	0.81
25499/27	27	0.516	13.11	0.032	0.81

22 AWG (0.35 mm²)

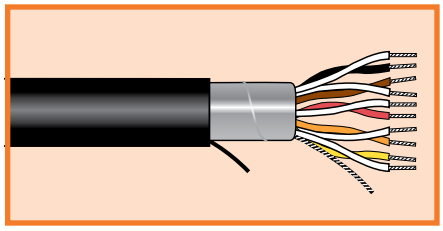
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25481	1	0.172	4.37	0.032	0.81
25482	2	0.236	5.99	0.032	0.81
25483	3	0.249	6.32	0.032	0.81
25484	4	0.271	6.88	0.032	0.81
25485	5	0.295	7.49	0.032	0.81
25486	6	0.320	8.13	0.032	0.81
25489	9	0.372	9.45	0.032	0.81
25489/11	11	0.400	10.16	0.032	0.81
25489/15	15	0.451	11.46	0.032	0.81
25489/19	19	0.483	12.27	0.032	0.81

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant 300 V Foil Shield, Multipair



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Aluminum/polyester/aluminum foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25452	2	0.302	7.67	0.032	0.81
25453	3	0.320	8.13	0.032	0.81
25456	6	0.419	10.64	0.032	0.81
25459	9	0.491	12.47	0.032	0.81
25459/12	12	0.549	13.94	0.032	0.81
25459/15	15	0.644	16.36	0.053	1.35

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

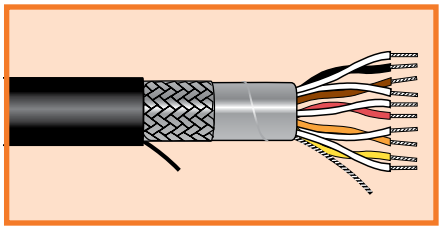
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25372	2	0.331	8.41	0.032	0.81
25373	3	0.352	8.94	0.032	0.81
25376	6	0.464	11.79	0.032	0.81
25379	9	0.545	13.84	0.053	1.35
25379/12	12	0.652	16.56	0.053	1.35

RoHS Compliant CA PROP 65

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

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Supra-Shield® Foil/Braid, Multipair



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25271	1	0.184	4.67	0.032	0.81
25272	2	0.240	6.10	0.032	0.81
25273	3	0.252	6.40	0.032	0.81
25274	4	0.271	6.88	0.032	0.81
25275	5	0.292	7.42	0.032	0.81
25276	6	0.314	7.98	0.032	0.81
25279	9	0.360	9.14	0.032	0.81
25279/11	11	0.385	9.78	0.032	0.81
25279/15	15	0.429	10.90	0.032	0.81
25279/19	19	0.457	11.61	0.032	0.81

22 AWG (0.35 mm²)

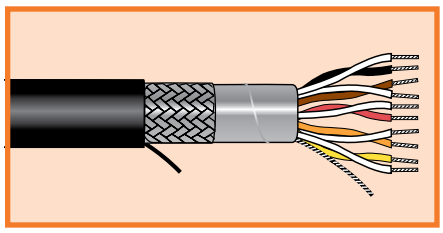
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25121	1	0.196	4.98	0.032	0.81
25122	2	0.260	6.60	0.032	0.81
25123	3	0.273	6.93	0.032	0.81
25124	4	0.295	7.49	0.032	0.81
25125	5	0.319	8.10	0.032	0.81
25126	6	0.344	8.74	0.032	0.81
25129	9	0.396	10.06	0.032	0.81
25129/11	11	0.424	10.77	0.032	0.81
25129/15	15	0.475	12.07	0.032	0.81

RoHS Compliant CA PROP 65

Xtra-Guard® 2

Oil and Abrasion Resistant
300 V Supra-Shield® Foil/Braid, Multipair



UL AWM 20668 VW-1
CSA AWM I/II A/B FT1

Operating Temperature

- –30°C to +90°C

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyurethane jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-750: Bonding adhesive lined, cross-linked polyolefin

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

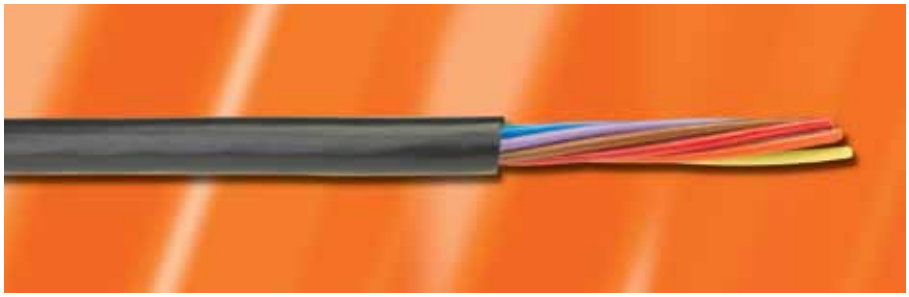
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25292	2	0.326	8.28	0.032	0.81
25293	3	0.344	8.74	0.032	0.81
25296	6	0.443	11.25	0.032	0.81
25299	9	0.515	13.08	0.032	0.81

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
25132	2	0.355	9.02	0.032	0.81
25133	3	0.376	9.55	0.032	0.81
25136	6	0.488	12.40	0.032	0.81
25139	9	0.611	15.52	0.053	1.35
25139/12	12	0.682	17.32	0.053	1.35

Xtra-Guard® 3
Direct Burial



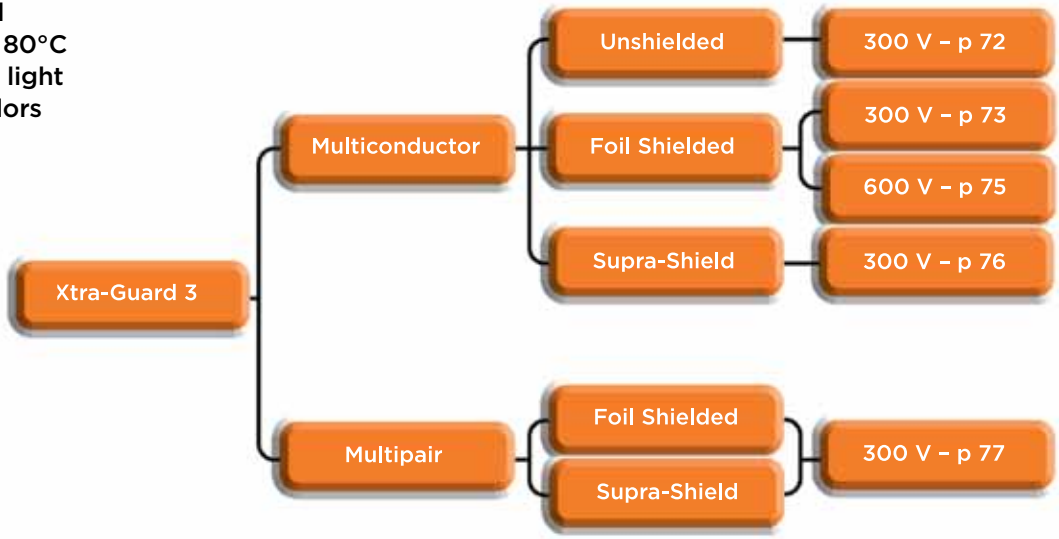
Features
- The preferred outdoor cable for direct burial
- Resistant to the effects of weathering, moisture, and UV aging without the costly use of conduit
- 6 times the water resistance of PVC
- Specially formulated polyethylene jacket for outstanding service life and ultraviolet light stability in all jacket colors
- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- 300 V and 600 V
- Unshielded, foil shielded, or Supra-Shield® foil/braid
- Temperature ratings to 80°C
- Outstanding ultraviolet light stability in all jacket colors

Applications
- Interbuilding communications
- Satellite communications equipment
- Land irrigation systems
- Outdoor security systems
- Outdoor scoreboards and displays
- Pipeline sensor controls

FIT® Tubing Recommendations
- FIT-700: Bonding thermoplastic adhesive lined, cross-linked polyolefin

SLATE	BEIGE	WHITE
RED	BLACK	BLUE
GREEN	YELLOW	ORANGE

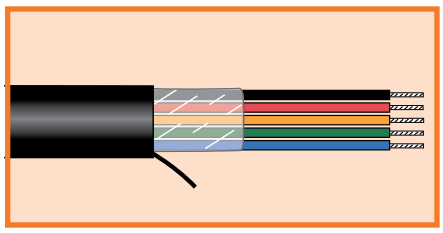
Xtra-Guard cables are available in a range of long-lasting colors for fast, easy identification, for safety reasons, and for matching the color of your system.



RoHS Compliant

Xtra-Guard® 3

Direct Burial
300 V Unshielded, Multiconductor



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

RoHS Compliant

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35002	2	0.167	4.24	0.032	0.81
35003	3	0.175	4.45	0.032	0.81
35004	4	0.188	4.78	0.032	0.81
35006	6	0.218	5.54	0.032	0.81
35008	8	0.233	5.92	0.032	0.81
35010	10	0.267	6.78	0.032	0.81
35010/15	15	0.297	7.54	0.032	0.81

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35052	2	0.207	5.26	0.032	0.81
35053	3	0.218	5.54	0.032	0.81
35054	4	0.236	5.99	0.032	0.81
35056	6	0.278	7.06	0.032	0.81
35058	8	0.300	7.62	0.032	0.81
35060	10	0.347	8.81	0.032	0.81
35060/15	15	0.389	9.88	0.032	0.81

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35062	2	0.225	5.72	0.032	0.81
35063	3	0.237	6.02	0.032	0.81
35064	4	0.258	6.55	0.032	0.81
35066	6	0.305	7.75	0.032	0.81
35068	8	0.330	8.38	0.032	0.81
35070	10	0.383	9.73	0.032	0.81
35070/15	15	0.430	10.92	0.032	0.81

16 AWG (1.23 mm²)

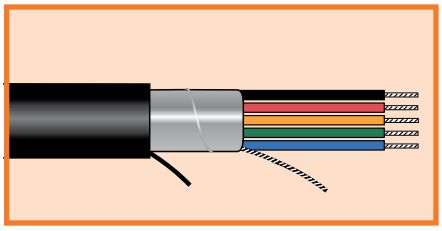
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35072	2	0.249	6.32	0.032	0.81
35073	3	0.263	6.68	0.032	0.81
35074	4	0.287	7.29	0.032	0.81
35076	6	0.341	8.66	0.032	0.81
35078	8	0.370	9.40	0.032	0.81
35080	10	0.431	10.95	0.032	0.81
35080/15	15	0.485	12.32	0.032	0.81

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

Xtra-Guard® 3

Direct Burial
300 V Foil Shield, Multiconductor



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- 22 AWG: Chart E (page 532)
- 20 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35192	2	0.171	4.34	0.032	0.81
35193	3	0.179	4.55	0.032	0.81
35194	4	0.192	4.88	0.032	0.81
35196	6	0.222	5.64	0.032	0.81
35198	8	0.237	6.02	0.032	0.81
35199/10	10	0.271	6.88	0.032	0.81
35199/15	15	0.301	7.65	0.032	0.81
35199/20	20	0.333	8.46	0.032	0.81
35199/25	25	0.371	9.42	0.032	0.81
35199/30	30	0.392	9.96	0.032	0.81
35199/40	40	0.436	11.07	0.032	0.81
35199/50	50	0.479	12.17	0.032	0.81
35199/60	60	0.521	13.23	0.032	0.81

20 AWG (0.56 mm²)

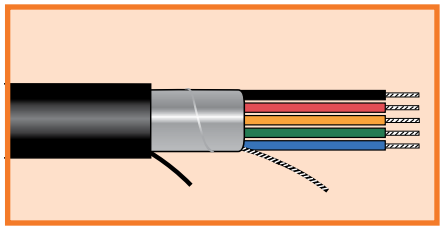
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35462	2	0.211	5.36	0.032	0.81
35463	3	0.222	5.64	0.032	0.81
35464	4	0.240	6.10	0.032	0.81
35466	6	0.282	7.16	0.032	0.81
35468	8	0.304	7.72	0.032	0.81
35470	10	0.351	8.92	0.032	0.81
35470/15	15	0.393	9.98	0.032	0.81
35470/20	20	0.437	11.10	0.032	0.81
35470/25	25	0.491	12.47	0.032	0.81

RoHS Compliant

Xtra-Guard® 3

Direct Burial
300 V Foil Shield, Multiconductor



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35382	2	0.229	5.82	0.032	0.81
35383	3	0.241	6.12	0.032	0.81
35384	4	0.262	6.65	0.032	0.81
35386	6	0.309	7.85	0.032	0.81
35388	8	0.334	8.48	0.032	0.81
35390	10	0.387	9.83	0.032	0.81
35390/15	15	0.434	11.02	0.032	0.81
35390/20	20	0.485	12.32	0.032	0.81
35390/25	25	0.587	14.91	0.053	1.35

16 AWG (1.23 mm²)

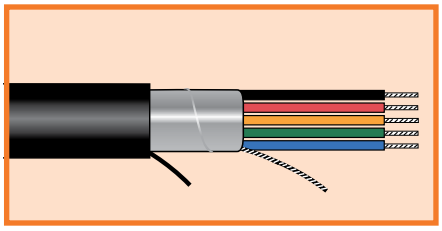
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35362	2	0.253	6.43	0.032	0.81
35363	3	0.267	6.78	0.032	0.81
35364	4	0.291	7.39	0.032	0.81
35366	6	0.345	8.76	0.032	0.81
35368	8	0.374	9.50	0.032	0.81
35370	10	0.435	11.05	0.032	0.81
35370/15	15	0.489	12.42	0.032	0.81
35370/20	20	0.589	14.96	0.053	1.35
35370/25	25	0.659	16.74	0.053	1.35

RoHS Compliant

Xtra-Guard® 3

Direct Burial
600 V Foil Shield, Multiconductor



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35430/2	2	0.355	9.02	0.063	1.60
35430/3	3	0.372	9.45	0.063	1.60
35430/5	5	0.434	11.02	0.063	1.60
35430/7	7	0.468	11.89	0.063	1.60
35430/9	9	0.537	13.64	0.063	1.60
35430/12	12	0.594	15.09	0.063	1.60

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35440/2	2	0.379	9.63	0.063	1.60
35440/3	3	0.398	10.11	0.063	1.60
35440/5	5	0.466	11.84	0.063	1.60
35440/7	7	0.504	12.80	0.063	1.60
35440/9	9	0.581	14.76	0.063	1.60
35440/12	12	0.644	16.36	0.063	1.60

14 AWG (2.08 mm²)

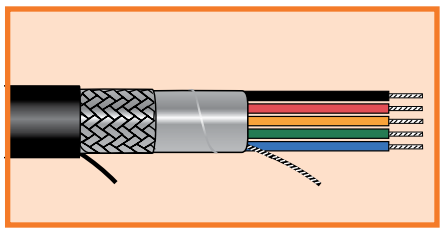
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35450/2	2	0.409	10.39	0.063	1.60
35450/3	3	0.431	10.95	0.063	1.60
35450/5	5	0.507	12.88	0.063	1.60
35450/7	7	0.549	13.94	0.063	1.60
35450/9	9	0.635	16.13	0.063	1.60
35450/12	12	0.706	17.93	0.063	1.60

RoHS Compliant

Xtra-Guard® 3

Direct Burial
300 V Supra-Shield® Foil/Braid, Multiconductor



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

RoHS Compliant

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35102	2	0.195	4.95	0.032	0.81
35103	3	0.203	5.16	0.032	0.81
35104	4	0.216	5.49	0.032	0.81
35106	6	0.246	6.25	0.032	0.81
35108	8	0.261	6.63	0.032	0.81
35110	10	0.295	7.49	0.032	0.81
35110/15	15	0.325	8.26	0.032	0.81

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35152	2	0.235	5.97	0.032	0.81
35153	3	0.246	6.25	0.032	0.81
35154	4	0.264	6.71	0.032	0.81
35156	6	0.306	7.77	0.032	0.81
35158	8	0.328	8.33	0.032	0.81
35160	10	0.375	9.53	0.032	0.81
35160/15	15	0.417	10.59	0.032	0.81

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35162	2	0.253	6.43	0.032	0.81
35162/1*	2	0.253	6.43	0.032	0.81
35163	3	0.265	6.73	0.032	0.81
35163/1*	3	0.265	6.73	0.032	0.81
35164	4	0.286	7.26	0.032	0.81
35166	6	0.333	8.46	0.032	0.81
35168	8	0.358	9.09	0.032	0.81
35170	10	0.411	10.44	0.032	0.81
35170/15	15	0.458	11.63	0.032	0.81

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

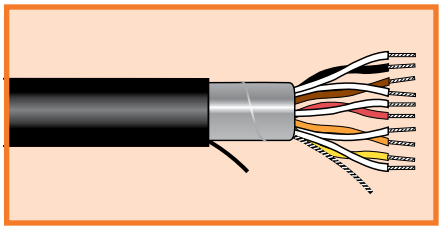
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35172	2	0.277	7.04	0.032	0.81
35172/1*	2	0.277	7.04	0.032	0.81
35173	3	0.291	7.39	0.032	0.81
35173/1*	3	0.291	7.39	0.032	0.81
35174	4	0.315	8.00	0.032	0.81
35176	6	0.369	9.37	0.032	0.81
35178	8	0.398	10.11	0.032	0.81
35180	10	0.459	11.66	0.032	0.81
35180/15	15	0.513	13.03	0.032	0.81

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 3

Direct Burial
300 V Foil Shield, Multipair



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- 24, 22 AWG: Chart B (page 528)
- 20, 18 AWG: Chart A (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35491	1	0.159	4.04	0.032	0.81
35492	2	0.215	5.46	0.032	0.81
35493	3	0.227	5.77	0.032	0.81
35494	4	0.246	6.25	0.032	0.81

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35481	1	0.171	4.34	0.032	0.81
35482	2	0.235	5.97	0.032	0.81
35483	3	0.248	6.30	0.032	0.81
35484	4	0.269	6.83	0.032	0.81
35485	5	0.293	7.44	0.032	0.81

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35452	2	0.301	7.65	0.032	0.81
35453	3	0.319	8.10	0.032	0.81

18 AWG (0.81 mm²)

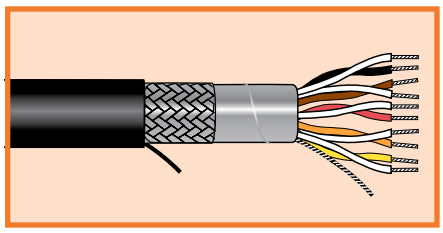
Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35372	2	0.330	8.38	0.032	0.81
35373	3	0.350	8.89	0.032	0.81
35376	6	0.462	11.73	0.032	0.81

RoHS Compliant

Xtra-Guard® 3

Direct Burial
300 V Supra-Shield® Foil/Braid, Multipair



Operating Temperature

- –30°C to +80°C

Conductor Color Coding

- Chart B (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- Premium PVC insulation
- Specially formulated polyethylene jacket
- UV resistant
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-700: Bonding, thermoplastic adhesive lined, cross-linked polyolefin

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35272	2	0.239	6.07	0.032	0.81

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
35121	1	0.195	4.95	0.032	0.081
35122	2	0.259	6.58	0.032	0.081
35123	3	0.272	6.91	0.032	0.081
35124	4	0.293	7.44	0.032	0.081
35125	5	0.317	8.05	0.032	0.081
35126	6	0.342	8.69	0.032	0.081
35129	9	0.393	9.98	0.032	0.081

RoHS Compliant

Xtra-Guard® 4

Advanced Temperature and Chemical Performance

Features

- The preferred outdoor cable for advanced temperature and chemical performance
- Temperature range from -50°C to +125°C
- High-performance TPE insulation and jacket offering 3 times the low-temperature flexibility of conventional PVC
- Solvent and water resistant
- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- 300 V and 600 V
- Unshielded, foil shielded, or Supra-Shield® foil/braid
- Outstanding ultraviolet light stability in all jacket colors
- Nylon ripcord for easy jacket stripping
- Approved by the US Mine Safety and Health Administration and The Pennsylvania Department of Environmental Protection
- Suitable for use in Class 1, Division 2 Locations under the applicable sections of the National Electric Code
- UL Types TC, PLTC, and WTTC
- CSA AWM I A/B II A/B FT1
- Passes UL 1685 Vertical Tray Flame Test

Applications

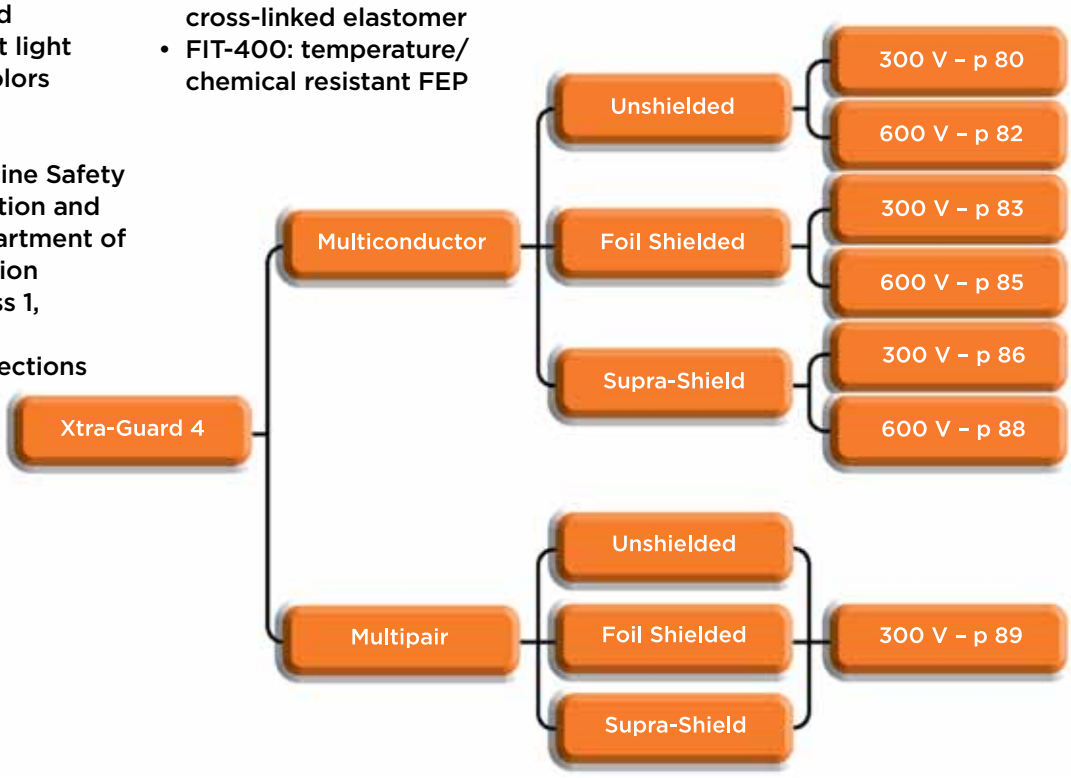
- Wood, paper, pulp, plant operations
- Mining instruments and controls
- Mass transit systems
- Military electronic applications
- Food and beverage plants
- Petrochemical process controls
- Arctic pipeline controls

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/ chemical resistant FEP

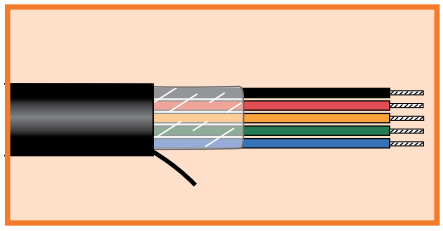
SLATE	BEIGE	WHITE
RED	BLACK	BLUE
GREEN	YELLOW	ORANGE

Xtra-Guard cables are available in a range of long-lasting colors for fast, easy identification, for safety reasons, and for matching the color of your system.



Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Unshielded, Multiconductor



UL AWM 20237
UL PLTC*
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 & 20 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

24 AWG (0.23 mm²)*

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45012	2	0.200	5.08	0.042	1.07
45013	3	0.209	5.31	0.042	1.07
45014	4	0.224	5.69	0.042	1.07
45016	6	0.257	6.53	0.042	1.07
45018	8	0.275	6.99	0.042	1.07
45020	10	0.312	7.92	0.042	1.07
45020/15	15	0.347	8.81	0.042	1.07
45020/20	20	0.383	9.73	0.042	1.07
45020/25	25	0.424	10.77	0.042	1.07

* UL AWM 20237, CSA AWM I/II A/B FT1 only

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45002	2	0.218	5.54	0.045	1.14
45003	3	0.228	5.79	0.045	1.14
45004	4	0.244	6.20	0.045	1.14
45006	6	0.281	7.14	0.045	1.14
45008	8	0.301	7.65	0.045	1.14
45010	10	0.342	8.69	0.045	1.14
45010/15	15	0.380	9.65	0.045	1.14
45010/20	20	0.441	11.20	0.055	1.40
45010/25	25	0.486	12.34	0.055	1.40

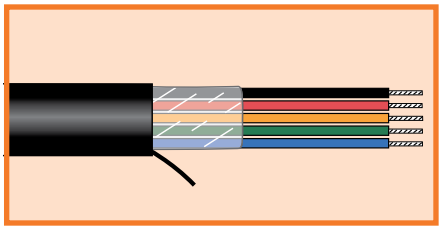
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45052	2	0.234	5.94	0.045	1.14
45053	3	0.245	6.22	0.045	1.14
45054	4	0.264	6.71	0.045	1.14
45056	6	0.306	7.77	0.045	1.14
45058	8	0.328	8.33	0.045	1.14
45060	10	0.374	9.50	0.045	1.14
45060/15	15	0.437	11.10	0.055	1.40
45060/20	20	0.483	12.27	0.055	1.40
45060/25	25	0.534	13.56	0.055	1.40

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Unshielded, Multiconductor



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45062	2	0.252	6.40	0.045	1.14
45062/1*	2	0.252	6.40	0.045	1.14
45063	3	0.264	6.71	0.045	1.14
45063/1*	3	0.264	6.71	0.045	1.14
45064	4	0.285	7.24	0.045	1.14
45066	6	0.333	8.46	0.045	1.14
45068	8	0.358	9.09	0.045	1.14
45070	10	0.430	10.92	0.055	1.40
45070/15	15	0.479	12.17	0.055	1.40
45070/20	20	0.530	13.46	0.055	1.40
45070/25	25	0.588	14.94	0.055	1.40

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

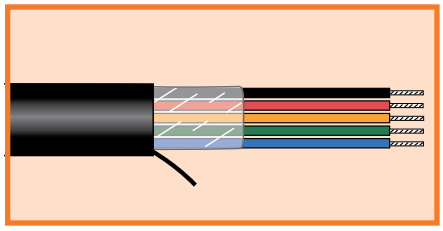
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45072	2	0.276	7.01	0.045	1.14
45072/1*	2	0.276	7.01	0.045	1.14
45073	3	0.290	7.37	0.045	1.14
45073/1*	3	0.290	7.37	0.045	1.14
45074	4	0.314	7.98	0.045	1.14
45076	6	0.369	9.37	0.045	1.14
45078	8	0.418	10.62	0.055	1.40
45080	10	0.478	12.14	0.055	1.40
45080/15	15	0.534	13.56	0.055	1.40
45080/20	20	0.593	15.06	0.055	1.40
45080/25	25	0.680	17.27	0.055	1.40

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 600 V Unshielded, Multiconductor



UL AWM 20238
UL TC, WTTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart E (page 532)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45422	2	0.336	8.53	0.055	1.40
45423	3	0.353	8.97	0.055	1.40
45424	4	0.383	9.73	0.055	1.40
45425	5	0.416	10.57	0.055	1.40
45427	7	0.450	11.43	0.055	1.40
45429	9	0.519	13.18	0.055	1.40

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45432	2	0.360	9.14	0.055	1.40
45433	3	0.379	9.63	0.055	1.40
45434	4	0.412	10.46	0.055	1.40
45435	5	0.448	11.38	0.055	1.40
45437	7	0.486	12.34	0.055	1.40
45439	9	0.583	14.81	0.065	1.65

14 AWG (2.08 mm²)

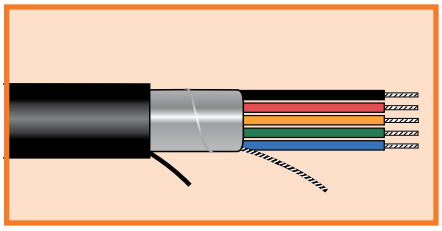
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45442	2	0.390	9.91	0.055	1.40
45443	3	0.412	10.46	0.055	1.40
45444	4	0.448	11.38	0.055	1.40
45445	5	0.489	12.42	0.055	1.40
45447	7	0.551	14.00	0.065	1.65

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

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Foil Shielded, Multiconductor



UL AWM 20237
UL PLTC*
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 & 20 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45092	2	0.204	5.18	0.042	1.07
45093	3	0.213	5.41	0.042	1.07
45094	4	0.228	5.79	0.042	1.07
45096	6	0.261	6.63	0.042	1.07
45098	8	0.279	7.09	0.042	1.07
45100	10	0.316	8.03	0.042	1.07
45100/15	15	0.351	8.92	0.042	1.07
45100/20	20	0.387	9.83	0.042	1.07
45100/25	25	0.428	10.87	0.042	1.07

* UL AWM 20237, CSA AWM I/II A/B FT1 only

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45192	2	0.222	5.64	0.045	1.14
45193	3	0.232	5.89	0.045	1.14
45194	4	0.248	6.30	0.045	1.14
45196	6	0.285	7.24	0.045	1.14
45198	8	0.305	7.75	0.045	1.14
45199/10	10	0.346	8.79	0.045	1.14
45199/15	15	0.404	10.26	0.055	1.40
45199/20	20	0.445	11.30	0.055	1.40
45199/25	25	0.490	12.45	0.055	1.40

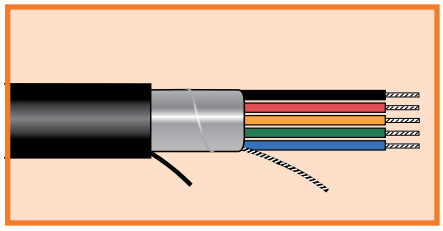
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45462	2	0.238	6.05	0.045	1.14
45463	3	0.249	6.32	0.045	1.14
45464	4	0.268	6.81	0.045	1.14
45466	6	0.310	7.87	0.045	1.14
45468	8	0.332	8.43	0.045	1.14
45470	10	0.378	9.60	0.045	1.14
45470/15	15	0.441	11.20	0.055	1.40
45470/20	20	0.487	12.37	0.055	1.40
45470/25	25	0.538	13.67	0.055	1.40
45470/40	40	0.650	16.51	0.065	1.65

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Foil Shielded, Multiconductor



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45382	2	0.256	6.50	0.045	1.14
45382/1*	2	0.256	6.50	0.045	1.14
45383	3	0.268	6.81	0.045	1.14
45383/1*	3	0.268	6.81	0.045	1.14
45384	4	0.289	7.34	0.045	1.14
45386	6	0.337	8.56	0.045	1.14
45388	8	0.362	9.19	0.045	1.14
45390	10	0.434	11.02	0.055	1.40
45390/15	15	0.483	12.27	0.055	1.40
45390/20	20	0.534	13.56	0.055	1.40
45390/25	25	0.592	15.04	0.055	1.40
45390/30	30	0.645	16.38	0.065	1.65

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

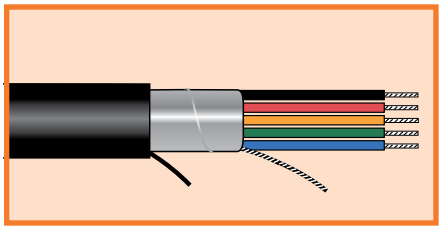
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45362	2	0.280	7.11	0.045	1.14
45362/1*	2	0.280	7.11	0.045	1.14
45363	3	0.294	7.47	0.045	1.14
45363/1*	3	0.294	7.47	0.045	1.14
45364	4	0.318	8.08	0.045	1.14
45366	6	0.373	9.47	0.045	1.14
45368	8	0.422	10.72	0.045	1.14
45370	10	0.482	12.24	0.055	1.40
45370/15	15	0.538	13.67	0.055	1.40
45370/20	20	0.597	15.16	0.055	1.40
45370/25	25	0.684	17.37	0.065	1.65

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 600 V Foil Shielded, Multiconductor



UL AWM 20238
UL TC, WTTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart E (page 532)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45430/2	2	0.340	8.64	0.055	1.40
45430/3	3	0.357	9.07	0.055	1.40
45430/4	4	0.387	9.83	0.055	1.40
45430/5	5	0.420	10.67	0.055	1.40
45430/7	7	0.454	11.53	0.055	1.40
45430/9	9	0.543	13.79	0.055	1.40
45430/12	12	0.599	15.21	0.065	1.65

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45440/2	2	0.364	9.25	0.055	1.40
45440/3	3	0.383	9.73	0.055	1.40
45440/5	5	0.452	11.48	0.055	1.40
45440/7	7	0.490	12.45	0.055	1.40
45440/9	9	0.587	14.91	0.065	1.65
45440/12	12	0.649	16.48	0.065	1.65

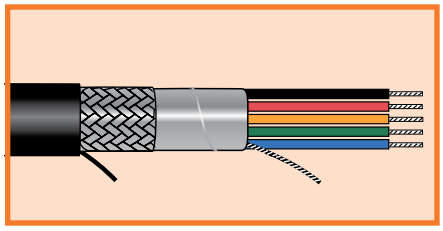
14 AWG (2.08 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45450/2	2	0.394	10.01	0.055	1.40
45450/3	3	0.416	10.57	0.055	1.40
45450/5	5	0.493	12.52	0.055	1.40
45450/7	7	0.555	14.10	0.065	1.65
45450/15	15	0.775	19.69	0.065	1.65

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 & 20 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45112	2	0.228	5.79	0.042	1.07
45113	3	0.237	6.02	0.042	1.07
45114	4	0.252	6.40	0.042	1.07
45116	6	0.285	7.24	0.042	1.07
45118	8	0.303	7.70	0.042	1.07
45120	10	0.340	8.64	0.042	1.07
45120/15	15	0.375	9.53	0.042	1.07
45120/20	20	0.411	10.44	0.042	1.07
45120/25	25	0.452	11.48	0.042	1.07

* UL AWM 20237, CSA AWM I/II A/B FT1 only

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45102	2	0.246	6.25	0.045	1.14
45103	3	0.256	6.50	0.045	1.14
45104	4	0.272	6.91	0.045	1.14
45106	6	0.309	7.85	0.045	1.14
45108	8	0.329	8.36	0.045	1.14
45110	10	0.370	9.40	0.045	1.14
45110/15	15	0.428	10.87	0.055	1.40
45110/20	20	0.469	11.91	0.055	1.40
45110/25	25	0.514	13.06	0.055	1.40

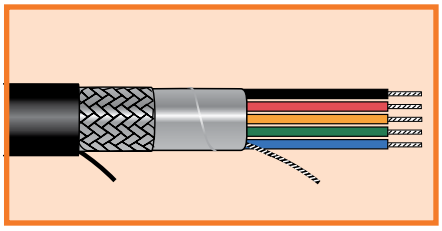
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45152	2	0.262	6.65	0.045	1.14
45153	3	0.273	6.93	0.045	1.14
45154	4	0.292	7.42	0.045	1.14
45156	6	0.334	8.48	0.045	1.14
45158	8	.0356	9.04	0.045	1.14
45160	10	0.422	10.72	0.055	1.40
45160/15	15	0.465	11.81	0.055	1.40
45160/20	20	0.511	12.98	0.055	1.40
45160/25	25	0.562	14.27	0.055	1.40

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- 24, 22 AWG: Chart E (page 532)
- 20, 18, 16 AWG: Chart D (page 531)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45162	2	0.280	7.11	0.045	1.14
45162/1*	2	0.280	7.11	0.045	1.14
45163	3	0.292	7.42	0.045	1.14
45163/1*	3	0.292	7.42	0.045	1.14
45164	4	0.313	7.95	0.045	1.14
45166	6	0.361	9.17	0.045	1.14
45168	8	0.406	10.31	0.045	1.14
45170	10	0.458	11.63	0.055	1.40
45170/15	15	0.507	12.88	0.055	1.40
45170/20	20	0.558	14.17	0.055	1.40
45170/25	25	0.636	16.15	0.065	1.65
45170/30	30	0.675	17.15	0.065	1.65

*Conductors color-coded per international standards: brown, blue, green/yellow.

16 AWG (1.23 mm²)

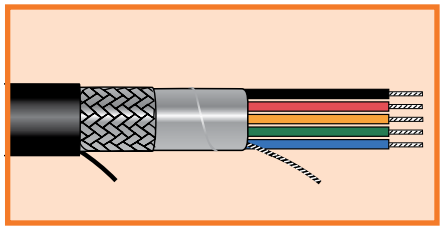
Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45172	2	0.304	7.72	0.045	1.14
45172/1*	2	0.304	7.72	0.045	1.14
45173	3	0.318	8.08	0.045	1.14
45173/1*	3	0.318	8.08	0.045	1.14
45174	4	0.342	8.69	0.045	1.14
45176	6	0.417	10.59	0.055	1.40
45178	8	0.446	11.33	0.055	1.40
45180	10	0.506	12.85	0.055	1.40
45180/15	15	0.562	14.27	0.055	1.40
45180/20	20	0.641	16.28	0.065	1.65
45180/25	25	0.714	18.14	0.065	1.65

*Conductors color-coded per international standards: brown, blue, green/yellow.

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 600 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20238
UL TC, WTTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart E (page 532)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

18 AWG (0.81 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45522	2	0.364	9.25	0.055	1.40
45523	3	0.381	9.68	0.055	1.40
45524	4	0.411	10.44	0.055	1.40
45525	5	0.444	11.28	0.055	1.40
45527	7	0.478	12.14	0.055	1.40
45529	9	0.567	14.40	0.065	1.65
45529/12	12	0.623	15.82	0.065	1.65

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45532	2	0.388	9.86	0.055	1.40
45533	3	0.407	10.34	0.055	1.40
45534	4	0.440	11.18	0.055	1.40
45535	5	0.476	12.09	0.055	1.40
45537	7	0.514	13.06	0.055	1.40
45539	9	0.611	15.52	0.065	1.65
45539/12	12	0.679	17.25	0.065	1.65

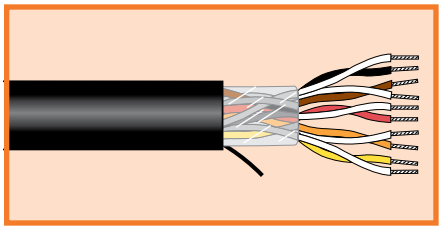
14 AWG (2.08 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45542	2	0.418	10.62	0.055	1.40
45543	3	0.440	11.18	0.055	1.40
45544	4	0.476	12.09	0.055	1.40
45545	5	0.517	13.13	0.055	1.40
45547	7	0.579	14.71	0.065	1.65
45549	9	0.672	17.07	0.065	1.65

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Unshielded, Multipair



18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45031	1	0.252	6.40	0.045	1.14
45032	2	0.353	8.97	0.045	1.14

UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart B (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

Availability

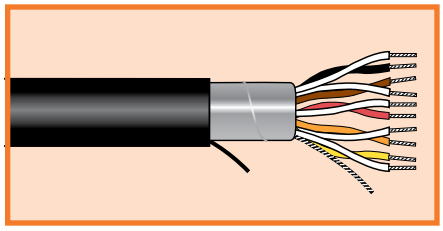
Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Foil Shield, Multipair



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart B (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45491	1	0.204	5.18	0.042	1.07
45492	2	0.276	7.01	0.042	1.07
45493	3	0.290	7.37	0.042	1.07
45494	4	0.314	7.98	0.042	1.07
45495	5	0.341	8.66	0.042	1.07
45496	6	0.370	9.40	0.042	1.07
45499	9	0.428	10.87	0.042	1.07
45499/11	11	0.459	11.66	0.042	1.07
45499/15	15	0.516	13.11	0.042	1.07
45499/27	27	0.679	17.25	0.053	1.35

* UL AWM 20237, CSA AWM I/II A/B FT1 only

22 AWG (0.35 mm²)

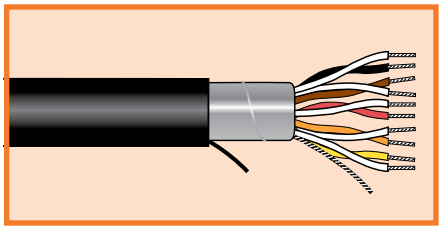
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45481	1	0.222	5.64	0.045	1.14
45482	2	0.301	7.65	0.045	1.14
45483	3	0.317	8.05	0.045	1.14
45484	4	0.344	8.74	0.045	1.14
45485	5	0.374	9.50	0.045	1.14
45486	6	0.425	10.80	0.055	1.40
45489	9	0.489	12.42	0.055	1.40
45489/11	11	0.525	13.34	0.055	1.40
45489/15	15	0.588	14.94	0.055	1.40

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

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Foil Shield, Multipair



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart B (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45451	1	0.238	6.05	0.045	1.14
45452	2	0.328	8.33	0.045	1.14
45453	3	0.346	8.79	0.045	1.14
45454	4	0.376	9.55	0.045	1.14
45455	5	0.430	10.92	0.055	1.40
45456	6	0.465	11.81	0.055	1.40
45459	9	0.537	13.64	0.055	1.40
45459/11	11	0.577	14.66	0.055	1.40
45459/15	15	0.668	16.97	0.065	1.65
45459/19	19	0.713	18.11	0.065	1.65
45459/27	27	0.885	22.48	0.065	1.65

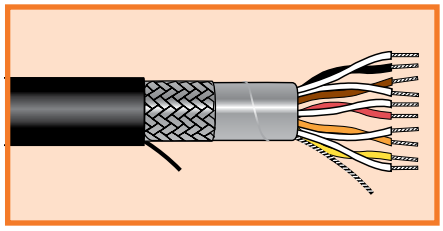
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45371	1	0.256	6.50	0.045	1.14
45372	2	0.357	9.07	0.045	1.14
45373	3	0.378	9.60	0.045	1.14
45374	4	0.432	10.97	0.055	1.40
45375	5	0.470	11.94	0.055	1.40
45376	6	0.510	12.95	0.055	1.40
45379	9	0.591	15.01	0.055	1.40
45379/11	11	0.656	16.66	0.065	1.65
45379/15	15	0.736	18.69	0.065	1.65
45379/19	19	0.787	19.99	0.065	1.65

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multipair



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart B (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45271	1	0.228	5.79	0.042	1.07
45272	2	0.300	7.62	0.042	1.07
45273	3	0.314	7.98	0.042	1.07
45274	4	0.338	8.59	0.042	1.07
45275	5	0.365	9.27	0.042	1.07
45276	6	0.394	10.01	0.042	1.07
45279	9	0.452	11.48	0.042	1.07
45279/11	11	0.483	12.27	0.042	1.07
45279/15	15	0.540	13.72	0.042	1.07
45279/19	19	0.598	15.19	0.053	1.35

* UL AWM 20237, CSA AWM I/II A/B FT1 only

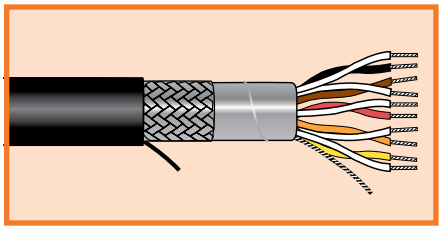
22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45121	1	0.246	6.25	0.045	1.14
45122	2	0.325	8.26	0.045	1.14
45123	3	0.341	8.66	0.045	1.14
45124	4	0.368	9.35	0.045	1.14
45125	5	0.418	10.62	0.055	1.40
45126	6	0.449	11.40	0.055	1.40
45129	9	0.513	13.03	0.055	1.40
45129/11	11	0.549	13.94	0.055	1.40
45129/15	15	0.632	16.05	0.065	1.65
45129/19	19	0.677	17.20	0.065	1.65

Xtra-Guard® 4

Advanced Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multipair



UL AWM 20237
UL PLTC
CSA AWM I/II A/B FT1
MSHA P-07-KA070017-MSHA
NEC Class 1, Div 2 (22 AWG)

Operating Temperature

- –50°C to +125°C

Conductor Color Coding

- Chart B (page 528)
- Nine jacket colors (black standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45291	1	0.262	6.65	0.045	1.14
45292	2	0.352	8.94	0.045	1.14
45293	3	0.370	9.40	0.045	1.14
45294	4	0.420	10.67	0.055	1.40
45295	5	0.454	11.53	0.055	1.40
45296	6	0.489	12.42	0.055	1.40
45299	9	0.561	14.25	0.055	1.40
45299/11	11	0.621	15.77	0.065	1.65
45299/15	15	0.698	17.73	0.065	1.65

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket thickness	
		Inch	mm	Inch	mm
45131	1	0.280	7.11	0.045	1.14
45132	2	0.381	9.68	0.045	1.14
45133	3	0.422	10.72	0.055	1.40
45134	4	0.456	11.58	0.055	1.40
45135	5	0.494	12.55	0.055	1.40
45136	6	0.534	13.56	0.055	1.40
45139	9	0.635	16.13	0.065	1.65
45139/11	11	0.686	17.42	0.065	1.65
45139/15	15	0.766	19.46	0.065	1.65

Xtra-Guard® 5

Maximum Temperature and Chemical Performance

Features

- The preferred cable for unsurpassed maximum temperature and chemical performance
- Temperature range from -80°C to +200°C
- UL, CSA listed
- 100% impervious to all chemicals, solvents, acids, fuels, and water
- Suitable for Class 1 cleanrooms
- FDA food/medical grade (sterilizable)
- Low-friction FEP jacket for easy routing
- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- 300 V
- Unshielded, foil shielded, or Supra-Shield® foil/braid
- Outstanding ultraviolet light stability in all jacket colors
- Aramid fiber ripcord for easy jacket stripping
- Excellent flame resistance and low smoke generation: Passes NFPA 262-2007

Applications

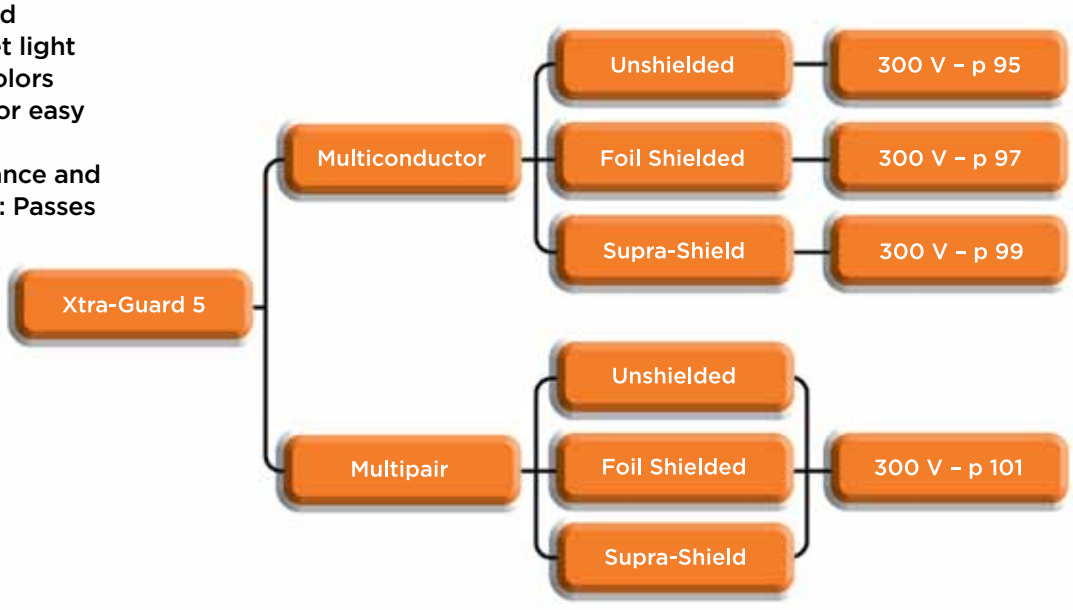
- Food and beverage wash-down
- Cleanroom environments
- Food/medical-grade applications
- Turbine generators
- Chemical processing
- Military electronics
- Mining instrumentation

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

TAN	BEIGE	WHITE
RED	BLACK	BLUE
GREEN	YELLOW	ORANGE

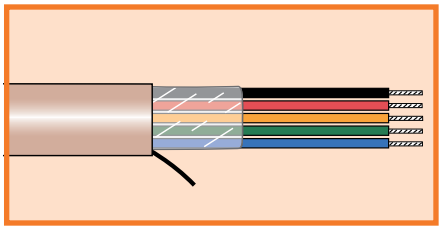
Xtra-Guard 5 cables are available in a range of long-lasting tints for fast, easy identification, for safety reasons, and for matching the color of your system.



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

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Unshielded, Multiconductor



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart E (page 532)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

24 AWG (0.23 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55012	2	0.148	3.76	0.027	0.69
55013	3	0.155	3.94	0.027	0.69
55014	4	0.166	4.22	0.027	0.69
55016	6	0.193	4.90	0.027	0.69
55019	9	0.220	5.59	0.027	0.69
55020/12	12	0.243	6.17	0.027	0.69

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55002	2	0.160	4.06	0.027	0.69
55003	3	0.168	4.27	0.027	0.69
55004	4	0.181	4.60	0.027	0.69
55006	6	0.211	5.36	0.027	0.69
55009	9	0.242	6.15	0.027	0.69
55010/12	12	0.268	6.81	0.027	0.69

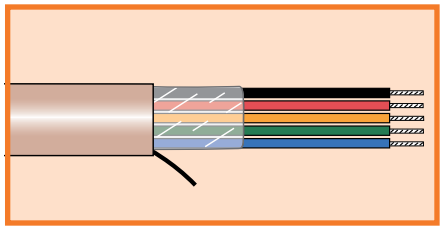
20 AWG (0.56 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55052	2	0.176	4.47	0.027	0.69
55053	3	0.185	4.70	0.027	0.69
55054	4	0.200	5.08	0.027	0.69
55056	6	0.235	5.97	0.027	0.69
55059	9	0.271	6.88	0.027	0.69
55060/12	12	0.301	7.65	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Unshielded, Multiconductor



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart E (page 532)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

18 AWG (0.90 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55062	2	0.196	4.98	0.027	0.69
55063	3	0.207	5.26	0.027	0.69
55064	4	0.225	5.72	0.027	0.69
55066	6	0.265	6.73	0.027	0.69
55069	9	0.307	7.80	0.027	0.69
55070/12	12	0.343	8.71	0.027	0.69

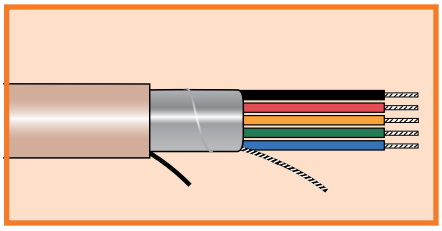
16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55072	2	0.218	5.54	0.027	0.69
55073	3	0.230	5.84	0.027	0.69
55074	4	0.251	6.38	0.027	0.69
55076	6	0.298	7.57	0.027	0.69
55079	9	0.347	8.81	0.027	0.69
55080/12	12	0.388	9.86	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Foil Shielded, Multiconductor



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart E (page 532)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

24 AWG (0.23 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55092	2	0.154	3.91	0.027	0.69
55093	3	0.161	4.09	0.027	0.69
55094	4	0.172	4.37	0.027	0.69
55096	6	0.199	5.05	0.027	0.69
55099	9	0.226	5.74	0.027	0.69
55100/12	12	0.249	6.32	0.027	0.69

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55192	2	0.166	4.22	0.027	0.69
55193	3	0.174	4.42	0.027	0.69
55194	4	0.187	4.75	0.027	0.69
55196	6	0.217	5.51	0.027	0.69
55199	9	0.248	6.30	0.027	0.69
55199/12	12	0.274	6.96	0.027	0.69

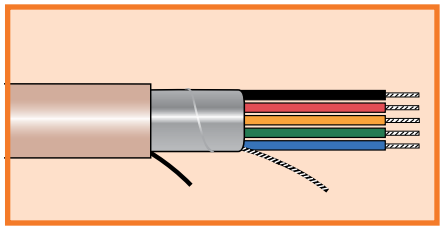
20 AWG (0.56 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55462	2	0.182	4.62	0.027	0.69
55463	3	0.191	4.85	0.027	0.69
55464	4	0.206	5.23	0.027	0.69
55466	6	0.241	6.12	0.027	0.69
55469	9	0.277	7.04	0.027	0.69
55470/12	12	0.307	7.80	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Foil Shielded, Multiconductor



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart E (page 532)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

18 AWG (0.90 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55382	2	0.202	5.13	0.027	0.69
55383	3	0.213	5.41	0.027	0.69
55384	4	0.231	5.87	0.027	0.69
55386	6	0.271	6.88	0.027	0.69
55389	9	0.313	7.95	0.027	0.69
55390/12	12	0.349	8.86	0.027	0.69

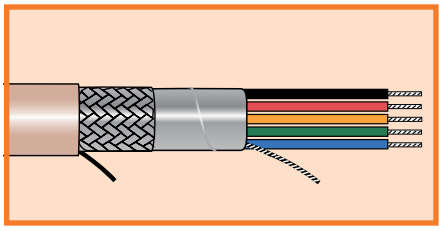
16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55362	2	0.224	5.69	0.027	0.69
55363	3	0.236	5.99	0.027	0.69
55364	4	0.257	6.53	0.027	0.69
55366	6	0.304	7.72	0.027	0.69
55369	9	0.353	8.97	0.027	0.69
55370/12	12	0.394	10.01	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart E (page 532)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

24 AWG (0.23 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55112	2	0.176	4.47	0.027	0.69
55113	3	0.183	4.65	0.027	0.69
55114	4	0.194	4.93	0.027	0.69
55116	6	0.221	5.61	0.027	0.69
55119	9	0.248	6.30	0.027	0.69
55120/12	12	0.271	6.88	0.027	0.69

22 AWG (0.35 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55102	2	0.188	4.78	0.027	0.69
55103	3	0.196	4.98	0.027	0.69
55104	4	0.209	5.31	0.027	0.69
55106	6	0.239	6.07	0.027	0.69
55109	9	0.270	6.86	0.027	0.69
55110/12	12	0.296	7.52	0.027	0.69

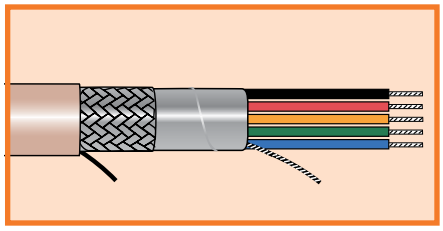
20 AWG (0.56 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55152	2	0.204	5.18	0.027	0.69
55153	3	0.213	5.41	0.027	0.69
55154	4	0.228	5.79	0.027	0.69
55156	6	0.263	6.68	0.027	0.69
55159	9	0.299	7.59	0.027	0.69
55160/12	12	0.329	8.36	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multiconductor



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart E (page 532)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

18 AWG (0.90 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55162	2	0.224	5.69	0.027	0.69
55163	3	0.235	5.97	0.027	0.69
55164	4	0.253	6.43	0.027	0.69
55166	6	0.293	7.44	0.027	0.69
55169	9	0.335	8.51	0.027	0.69
55170/12	12	0.371	9.42	0.027	0.69

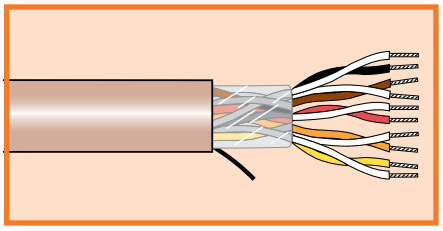
16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55172	2	0.246	6.25	0.027	0.69
55173	3	0.258	6.55	0.027	0.69
55174	4	0.279	7.09	0.027	0.69
55176	6	0.326	8.28	0.027	0.69
55179	9	0.375	9.53	0.027	0.69
55180/12	12	0.416	10.57	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Unshielded, Multipair



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart A (page 528)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

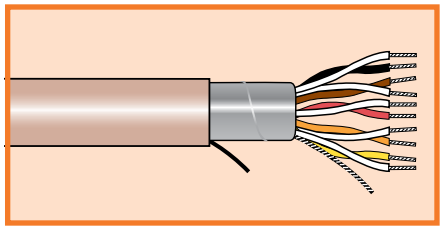
22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55021	1	0.160	4.06	0.027	0.69
55022	2	0.224	5.69	0.027	0.69
55023	3	0.237	6.02	0.027	0.69
55026	6	0.307	7.80	0.027	0.69
55029	9	0.358	9.09	0.027	0.69
55029/12	12	0.401	10.19	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Foil Shield, Multipair



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart A (page 528)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55491	1	0.154	3.91	0.027	0.69
55492	2	0.210	5.33	0.027	0.69
55493	3	0.222	5.64	0.027	0.69
55496	6	0.284	7.21	0.027	0.69
55499	9	0.329	8.36	0.027	0.69
55499/11	11	0.355	9.02	0.027	0.69

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55481	1	0.166	4.22	0.027	0.69
55482	2	0.230	5.84	0.027	0.69
55483	3	0.243	6.17	0.027	0.69
55486	6	0.313	7.95	0.027	0.69
55489	9	0.364	9.25	0.027	0.69
55489/12	12	0.407	10.34	0.027	0.69

20 AWG (0.56 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55451	1	0.182	4.62	0.027	0.69
55452	2	0.256	6.50	0.027	0.69
55453	3	0.271	6.88	0.027	0.69
55455	5	0.324	8.23	0.027	0.69
55456	6	0.353	8.97	0.027	0.69
55459	9	0.412	10.46	0.027	0.69
55459/12	12	0.461	11.71	0.027	0.69

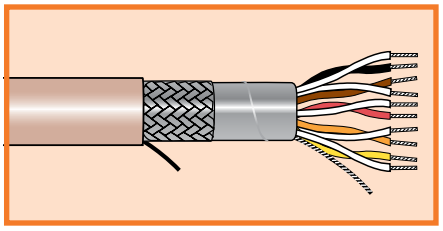
18 AWG (0.90 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55371	1	0.202	5.13	0.027	0.69
55372	2	0.289	7.34	0.027	0.69
55373	3	0.306	7.77	0.027	0.69
55376	6	0.402	10.21	0.027	0.69
55379	9	0.472	11.99	0.027	0.69

Xtra-Guard® 5

Maximum Temperature and Chemical Performance 300 V Supra-Shield® Foil/Braid, Multipair



UL AWM 20229
UL CMP
CSA CMP FT6

Operating Temperature

- –80°C to +200°C
- –80°C to +150°C (AWM, CMP)

Conductor Color Coding

- Chart A (page 528)
- Nine jacket tints (tan standard)
- Custom colors available

Materials

- Stranded tinned copper conductors
- FEP insulation
- FEP jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Aramid fiber ripcord

Availability

Made to order
1000 ft (305 m) minimum

FIT® Tubing Recommendations

- FIT-650: Chemical/temperature resistant flexible fluoroelastomer
- FIT-400: Temperature/chemical resistant FEP

24 AWG (0.23 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55271	1	0.176	4.47	0.027	0.69
55272	2	0.232	5.89	0.027	0.69
55273	3	0.244	6.20	0.027	0.69
55276	6	0.306	7.77	0.027	0.69
55279	9	0.351	8.92	0.027	0.69
55279/12	12	0.388	9.86	0.027	0.69

22 AWG (0.35 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55121	1	0.188	4.78	0.027	0.69
55122	2	0.252	6.40	0.027	0.69
55123	3	0.265	6.73	0.027	0.69
55126	6	0.335	8.51	0.027	0.69
55129	9	0.386	9.80	0.027	0.69
55129/12	12	0.429	10.90	0.027	0.69

20 AWG (0.56 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55291	1	0.204	5.18	0.027	0.69
55292	2	0.278	7.06	0.027	0.69
55293	3	0.293	7.44	0.027	0.69
55296	6	0.375	9.53	0.027	0.69
55299	9	0.434	11.02	0.027	0.69
55299/12	12	0.483	12.27	0.027	0.69

18 AWG (0.90 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

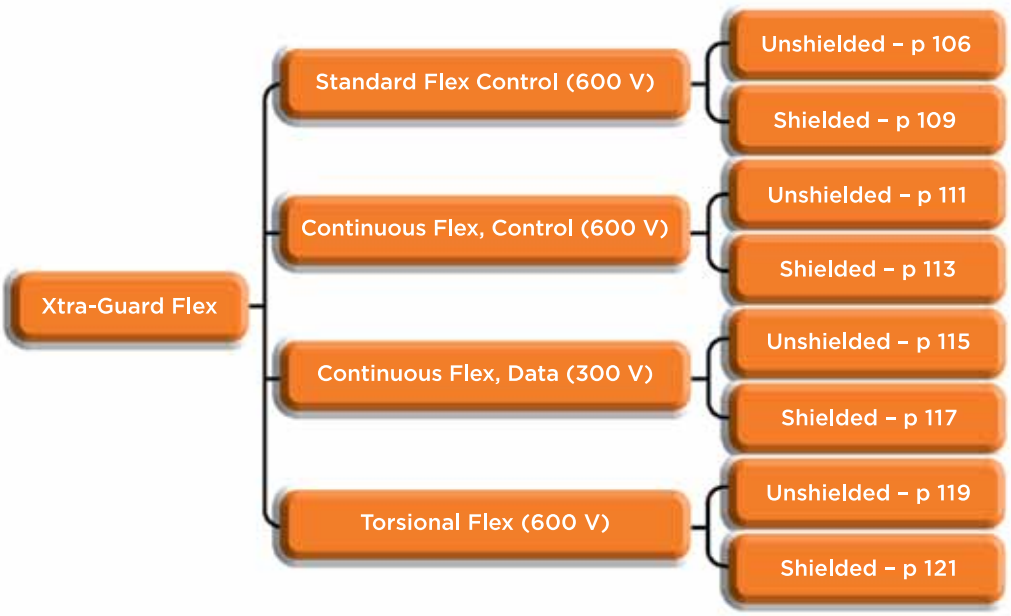
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
55131	1	0.224	5.69	0.027	0.69
55132	2	0.311	7.90	0.027	0.69
55133	3	0.328	8.33	0.027	0.69
55136	6	0.424	10.77	0.027	0.69
55139	9	0.504	12.80	0.032	0.81

Xtra-Guard® Flex Cables

Flexible/Flexing

Meet a wide range of flexing needs with Xtra-Guard Flex cables, from light flexing to continuous multiaxis flexing. These long-lasting flexible cables are designed to provide excellent performance in high-flex, high torsion, and continuous flex applications, such as motion control and robotics.

Application	Xtra-Guard Cable	Voltage Rating	Flex Cycles
Light to moderate flexing	Xtra-Guard Standard Flex Control	600	1 million
Continuous flex control	Xtra-Guard Continuous Flex Control	600	14 million
Continuous flex data	Xtra-Guard Continuous Flex Data	300	6 million
Torsional flex	Xtra-Guard Torsional Flex	600	1 million



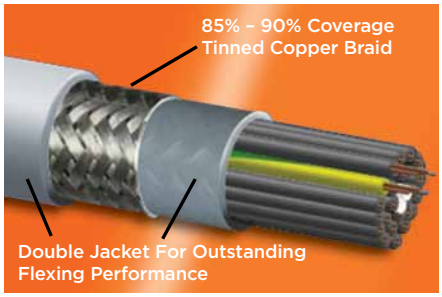
Xtra-Guard® Flex Cables

Flexible/Flexing

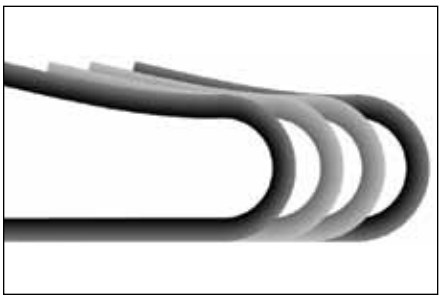
Xtra-Guard cables are available in a variety of configurations to allow exactly the right cable to be selected for your flexing application. There are four common types of cable flexing movements to consider when designing and applying a high-flexing cable and they are:

- **Rolling flex, such as C-track or Cartesian motions**
- **Bending flex or "tic-toc," such as hinged panels**
- **Torsional flex, such as twisting**
- **Variable/random motion flex**

Different cable construction methods and materials are used depending on the cable flexing movement. For example: torsional cables will have a different lay length and cabling from a rolling flex cable. The performance of a cable is evaluated using physical test data and statistical analysis to produce what is known as "flex life" and overall system reliability.

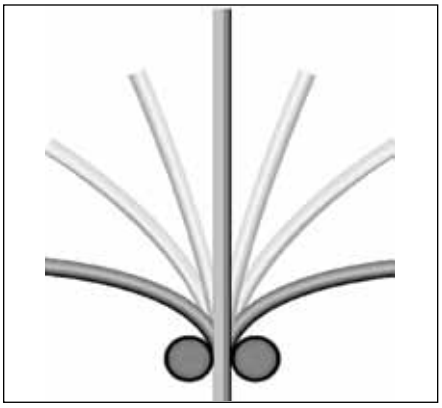


Our high-flex shielding options include a double-jacket configuration with 85% braid coverage to achieve high shielding effectiveness while maintaining the desired flexibility. For torsional flex applications, we offer spiral wound shielding with 90% coverage.



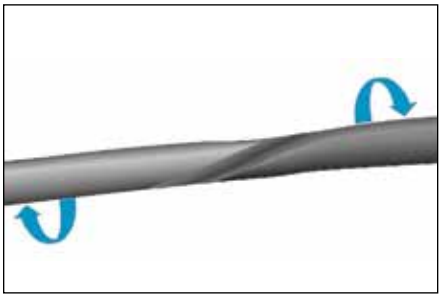
Rolling Flex

- **Xtra-Guard Continuous Flex Control Cable (600 V)**
- **Xtra-Guard Continuous Flex Data Cable (300 V)**



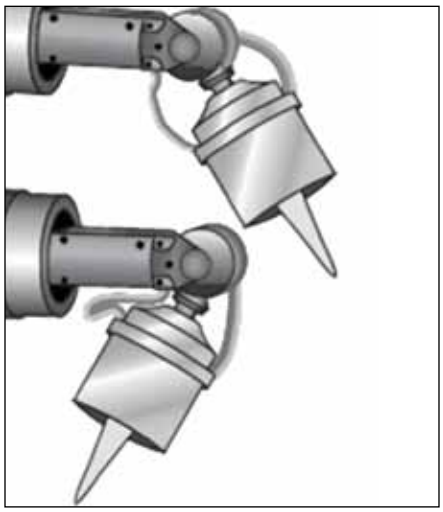
Bending Flex

- **Xtra-Guard Standard Flex Cable (600 V)**
- **Xtra-Guard Continuous Flex Control Cable (600 V)**
- **Xtra-Guard Continuous Flex Data Cable (300 V)**



Torsion Flex

- **Xtra-Guard Torsional Flex Cable (600 V)**



Variable/Random Flex

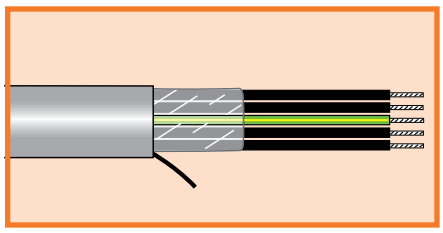
- **Xtra-Guard Standard Flex Cable (600 V)**
- **Xtra-Guard Continuous Flex Control Cable (600 V)**
- **Xtra-Guard Continuous Flex Data Cable (300 V)**

Applications

- **Cartesian robots**
- **Articulated multi-axis robots**
- **Automation networking**
- **Machine tools**
- **Automotive assembly equipment**
- **Conveyor systems**
- **Control panels**
- **Flex and static track**
- **Transfer shuttles**
- **Sensor/actuator-to-controller connections**
- **Material-handling equipment**

Xtra-Guard® Standard Flex Control Cable

Light to Moderate Flex Applications
600 V Unshielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- –5°C to +90°C (flexing)
- –40°C to +90°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor (3 conductor and greater)
- Jacket color: slate

Materials

- Finely stranded bare copper conductors
- Lubricated PVC insulation
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65002	2	0.238	6.05	0.035	0.89
65003	3	0.251	6.38	0.035	0.89
65004	4	0.272	6.91	0.035	0.89
65005	5	0.305	7.75	0.038	0.97
65007	7	0.327	8.31	0.038	0.97
65009	9	0.416	10.57	0.040	1.02
65012	12	0.433	11.00	0.045	1.14
65018	18	0.527	13.39	0.055	1.40
65025	25	0.615	15.62	0.055	1.40

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65802	2	0.258	6.55	0.035	0.89
65803	3	0.272	6.91	0.035	0.89
65804	4	0.296	7.52	0.035	0.89
65805	5	0.326	8.28	0.035	0.89
65807	7	0.351	8.92	0.035	0.89
65809	9	0.445	11.30	0.035	0.89
65812	12	0.470	11.94	0.043	1.09
65818	18	0.567	14.40	0.050	1.27
65825	25	0.666	16.92	0.050	1.27
65834	34	0.769	19.53	0.060	1.52
65841	41	0.835	21.21	0.063	1.60
65850	50	0.967	24.56	0.083	2.11

16 AWG (1.32 mm²)

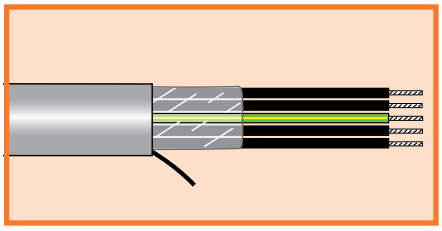
Stranding: 26/30 (26 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65602	2	0.284	7.21	0.035	0.89
65603	3	0.300	7.62	0.035	0.89
65604	4	0.328	8.33	0.035	0.89
65605	5	0.361	9.17	0.035	0.89
65607	7	0.390	9.91	0.035	0.89
65609	9	0.509	12.93	0.041	1.04
65612	12	0.536	13.61	0.049	1.24
65618	18	0.632	16.05	0.050	1.27
65625	25	0.756	19.20	0.055	1.40
65641	41	0.959	24.36	0.075	1.90
65650	50	1.079	27.41	0.083	2.11

RoHS Compliant CA PROP 65

Xtra-Guard® Standard Flex Control Cable

Light to Moderate Flex Applications
600 V Unshielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- –5°C to +90°C (flexing)
- –40°C to +90°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor (3 conductor and greater)
- Jacket color: slate

Materials

- Finely stranded bare copper conductors
- Lubricated PVC insulation
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65402	2	0.330	8.38	0.044	1.12
65403	3	0.351	8.92	0.045	1.14
65404	4	0.404	10.26	0.055	1.40
65405	5	0.439	11.15	0.055	1.40
65407	7	0.479	12.17	0.058	1.47
65409	9	0.609	15.47	0.063	1.60
65412	12	0.667	16.94	0.085	2.16
65418	18	0.783	19.89	0.090	2.29
65425	25	0.953	24.21	0.110	2.79

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65203	3	0.436	11.07	0.067	1.70
65204	4	0.500	12.70	0.080	2.03
65205	5	0.553	14.05	0.086	2.18
65207	7	0.592	15.04	0.086	2.18

10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65103	3	0.516	13.11	0.080	2.03
65104	4	0.568	14.43	0.084	2.13
65105	5	0.629	15.98	0.090	2.29

8 AWG (8.32 mm²)

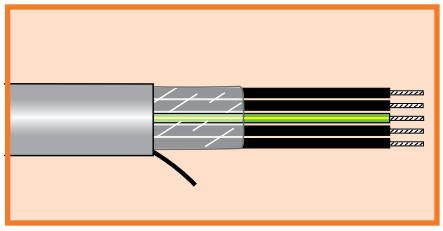
Stranding: 65/26 (65 x 0.40 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65904	4	0.691	17.55	0.085	2.16
65905	5	0.765	19.43	0.090	2.29

RoHS Compliant CA PROP 65

Xtra-Guard® Standard Flex Control Cable

Light to Moderate Flex Applications
600 V Unshielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- –5°C to +90°C (flexing)
- –40°C to +90°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: slate

Materials

- Finely stranded bare copper conductors
- Lubricated PVC insulation
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

6 AWG (13.44 mm²)

Stranding: 105/26 (105 x 0.40 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65704	4	0.891	22.63	0.100	2.54
65705	5	0.985	25.02	0.105	2.67

4 AWG (21.5 mm²)

Stranding: 168/26 (168 x 0.40 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65504	4	1.080	27.43	0.100	2.54
65505	5	1.207	30.66	0.110	2.79

2 AWG (34.05 mm²)

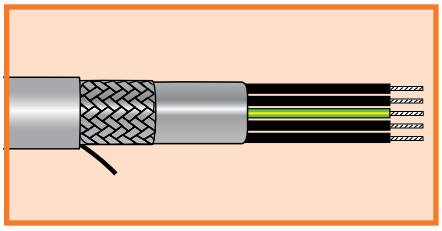
Stranding: 266/26 (266 x 0.40 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65304	4	1.273	32.33	0.120	3.05
65305	5	1.428	36.27	0.135	3.43

RoHS Compliant CA PROP 65

Xtra-Guard® Standard Flex Control Cable

Light to Moderate Flex Applications
600 V Shielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- –5°C to +90°C (flexing)
- –40°C to +90°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: slate

Materials

- Finely stranded bare copper conductors
- Lubricated PVC Insulation
- Oil-resistant PVC jacket
- Tinned copper braid shield, 85% coverage

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65003CY	3	0.339	8.61	0.035	0.89
65007CY	7	0.409	10.39	0.035	0.89
65012CY	12	0.521	13.23	0.040	1.02
65025CY	25	0.712	18.08	0.050	1.27

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65803CY	3	0.360	9.14	0.035	0.89
65804CY	4	0.384	9.75	0.035	0.89
65805CY	5	0.414	10.52	0.035	0.89
65807CY	7	0.439	11.15	0.035	0.89
65812CY	12	0.568	14.43	0.045	1.14
65818CY	18	0.671	17.04	0.053	1.35
65825CY	25	0.776	19.71	0.053	1.35

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65603CY	3	0.388	9.86	0.035	0.89
65604CY	4	0.416	10.57	0.035	0.89
65605CY	5	0.449	11.40	0.035	0.89
65607CY	7	0.484	12.29	0.035	0.89
65612CY	12	0.640	16.26	0.052	1.32
65618CY	18	0.767	19.48	0.062	1.57
65625CY	25	0.901	22.89	0.067	1.70

14 AWG (2.08 mm²)

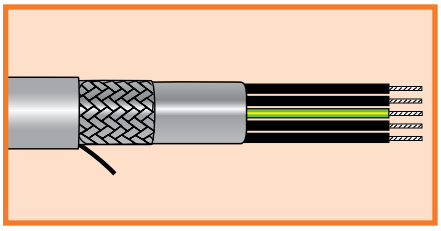
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65403CY	3	0.443	11.25	0.042	1.07
65404CY	4	0.486	12.34	0.047	1.19
65405CY	5	0.537	13.64	0.052	1.32
65407CY	7	0.581	14.76	0.057	1.45
65412CY	12	0.732	18.59	0.062	1.57
65418CY	18	0.890	22.61	0.083	2.11

RoHS Compliant CA PROP 65

Xtra-Guard® Standard Flex Control Cable

Light to Moderate Flex Applications
600 V Shielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- –5°C to +90°C (flexing)
- –40°C to +90°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: slate

Materials

- Finely stranded bare copper conductors
- Lubricated PVC Insulation
- PVC inner jacket
- Oil-resistant PVC jacket
- Tinned copper braid shield, 85% coverage

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

12 AWG (3.31 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65203CY	3	0.530	13.46	0.060	1.52
65204CY	4	0.616	15.65	0.066	1.68
65205CY	5	0.671	17.04	0.073	1.85

10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
65103CY	3	0.630	16.00	0.070	1.78
65104CY	4	0.684	17.37	0.070	1.78
65105CY	5	0.757	19.23	0.077	1.96
65107CY	7	0.823	20.90	0.083	2.11

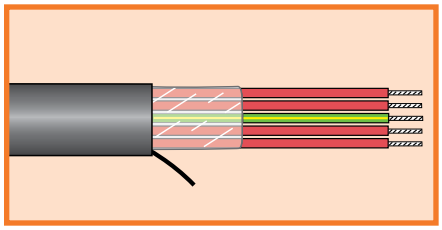
8 to 2 AWG (8.32 to 34.05 mm²)

Part No.	Conductors	Wire Size		Stranding		Nominal Diameter		Jacket Thickness		Insulation Thickness	
		AWG	mm²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
65904CY	4	8	8.32	65/26	65 x 0.40	0.822	20.88	0.075	1.90	0.032	0.81
65704CY	4	6	13.44	105/26	105 x 0.40	1.062	26.97	0.100	2.54	0.047	1.19
65504CY	4	4	21.55	168/26	168 x 0.40	1.251	31.78	0.100	2.54	0.047	1.19
65304CY	4	2	34.05	266/26	266 x 0.40	1.453	36.91	0.110	2.79	0.047	1.19

RoHS Compliant CA PROP 65

Xtra-Guard® Continuous Flex Control

C-Track or High Flexing Applications Up to 14 Million Flex Life Cycles
600 V Unshielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -5°C to +90°C (flexing)
- -40°C to +90°C (stationary)

Conductor Color Coding

- Numbered red conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Finely stranded tinned copper conductors
- Lubricated PVC insulation
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

20 AWG (0.51 mm²)

Stranding: 63/38 (63 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85003	3	0.272	6.91	0.035	0.89
85004	4	0.297	7.54	0.035	0.89
85005	5	0.323	8.20	0.035	0.89
85007	7	0.388	9.86	0.040	1.02
85012	12	0.460	11.68	0.045	1.14
85018	18	0.548	13.92	0.050	1.27
85025	25	0.691	17.55	0.065	1.65
85034	34	0.746	18.95	0.065	1.65

18 AWG (0.85 mm²)

Stranding: 105/38 (105 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85803	3	0.298	7.57	0.035	0.89
85804	4	0.326	8.28	0.035	0.89
85805	5	0.355	9.02	0.035	0.89
85807	7	0.438	11.13	0.045	1.14
85812	12	0.520	13.21	0.050	1.27
85815	15	0.577	14.66	0.050	1.27
85818	18	0.608	15.44	0.050	1.27
85825	25	0.767	19.48	0.065	1.65
85834	34	0.830	21.08	0.065	1.65

16 AWG (1.36 mm²)

Stranding: 168/38 (168 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85603	3	0.331	8.41	0.035	0.89
85604	4	0.362	9.19	0.035	0.89
85605	5	0.396	10.06	0.035	0.89
85607	7	0.478	12.14	0.040	1.02
85612	12	0.573	14.55	0.045	1.14
85618	18	0.674	17.12	0.045	1.14
85625	25	0.862	21.89	0.065	1.65
85634	34	0.936	23.77	0.065	1.65
85650	50	1.161	29.49	0.085	2.16

14 AWG (2.16 mm²)

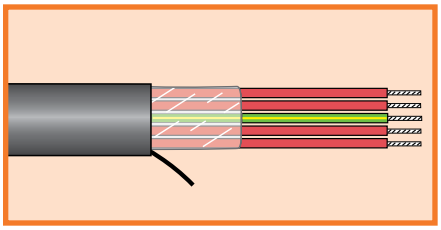
Stranding: 266/38 (266 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85404	4	0.424	10.77	0.050	1.27
85407	7	0.582	14.78	0.070	1.78

RoHS Compliant CA PROP 65

Xtra-Guard® Continuous Flex Control

C-Track or High Flexing Applications Up to 14 Million Flex Life Cycles 600 V Unshielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -5°C to +90°C (flexing)
- -40°C to +90°C (stationary)

Conductor Color Coding

- Numbered red conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Finely stranded tinned copper conductors
- Lubricated PVC insulation
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

12 AWG (3.35 mm²)

Stranding: 413/38 (413 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85204	4	0.527	13.39	0.070	1.78
85207	7	0.729	18.52	0.100	2.54

10 AWG (5.34 mm²)

Stranding: 658/38 (658 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85104	4	0.590	14.99	0.070	1.78
85107	7	0.816	20.73	0.100	2.54

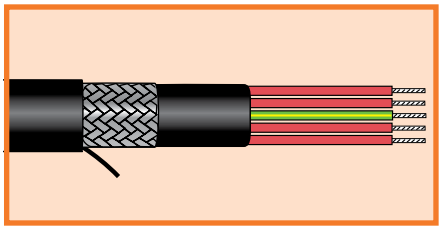
8 to 2 AWG (8.62 to 33.86 mm²)

Part No.	Conductors	Wire Size		Stranding		Nominal Diameter		Jacket Thickness		Insulation Thickness	
		AWG	mm²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
85904	4	8	8.62	266/32	266 x 0.20	0.721	18.31	0.070	1.78	0.032	0.81
85704	4	6	13.38	413/32	413 x 0.20	0.935	23.75	0.085	2.16	0.047	1.19
85504	4	4	21.55	665/32	665 x 0.20	1.076	27.33	0.085	2.16	0.047	1.19
85304	4	2	33.86	1045/32	1045 x 0.20	1.250	31.75	0.085	2.16	0.047	1.19

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

Xtra-Guard® Continuous Flex Control

C-Track or High Flexing Applications Up to 14 Million Flex Life Cycles 600 V Shielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -5°C to +90°C (flexing)
- -40°C to +90°C (stationary)

Conductor Color Coding

- Numbered red conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Finely stranded bare copper conductors
- Lubricated PVC insulation
- Tinned copper braid shield, 85% coverage
- PVC inner jacket
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

20 AWG (0.51 mm²)

Stranding: 63/38 (63 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85003CY	3	0.350	8.89	0.035	0.89
85004CY	4	0.375	9.53	0.035	0.89
85005CY	5	0.411	10.44	0.040	1.02
85007CY	7	0.482	12.24	0.040	1.02
85010CY	10	0.545	13.84	0.040	1.02
85012CY	12	0.564	14.33	0.050	1.27
85018CY	18	0.662	16.81	0.060	1.52
85025CY	25	0.812	20.62	0.070	1.78

18 AWG (0.85 mm²)

Stranding: 105/38 (105 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85803CY	3	0.376	9.55	0.035	0.89
85804CY	4	0.414	10.52	0.040	1.02
85805CY	5	0.453	11.51	0.040	1.02
85807CY	7	0.532	13.51	0.045	1.14
85812CY	12	0.634	16.10	0.060	1.52
85818CY	18	0.725	18.42	0.060	1.52
85825CY	25	0.908	23.06	0.080	2.03

16 AWG (1.36 mm²)

Stranding: 168/38 (168 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85603CY	3	0.419	10.64	0.035	0.89
85604CY	4	0.460	11.68	0.040	1.02
85605CY	5	0.500	12.70	0.040	1.02
85607CY	7	0.602	15.29	0.055	1.40
85612CY	12	0.700	17.78	0.060	1.52
85615CY	15	0.769	19.53	0.060	1.52
85618CY	18	0.805	20.45	0.060	1.52
85625CY	25	0.973	24.71	0.065	1.65
85634CY	34	1.087	27.61	0.085	2.16

14 AWG (2.16 mm²)

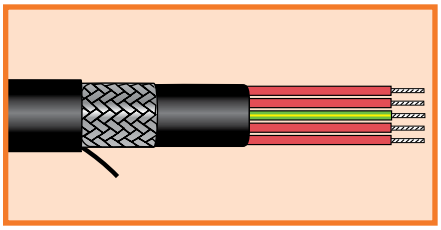
Stranding: 266/38 (266 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85404CY	4	0.528	13.41	0.050	1.27
85407CY	7	0.676	17.17	0.065	1.65

RoHS Compliant CA PROP 65

Xtra-Guard® Continuous Flex Control

C-Track or High Flexing Applications Up to 14 Million Flex Life Cycles 600 V Shielded, Multiconductor



UL AWM 2587
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -5°C to +90°C (flexing)
- -40°C to +90°C (stationary)

Conductor Color Coding

- Numbered red conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Finely stranded bare copper conductors
- Lubricated PVC insulation
- Tinned copper braid shield, 85% coverage
- PVC inner jacket
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

12 AWG (3.35 mm²)

Stranding: 413/38 (413 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85204CY	4	0.641	16.28	0.075	1.90
85207CY	7	0.836	21.23	0.100	2.54

10 AWG (5.34 mm²)

Stranding: 658/38 (658 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
85104CY	4	0.707	17.96	0.070	1.78
85107CY	7	0.947	24.05	0.100	2.54

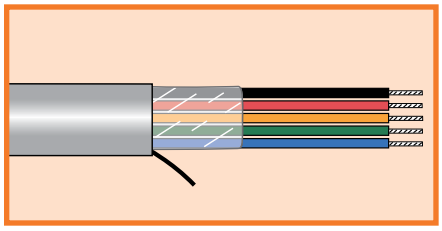
8 to 2 AWG (8.62 to 33.86 mm²)

Part No.	Conductors	Wire Size		Stranding		Nominal Diameter		Jacket Thickness		Insulation Thickness	
		AWG	mm²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
85904CY	4	8	8.62	266/32	266 x 0.20	0.882	22.40	0.085	2.16	0.032	0.81
85704CY	4	6	13.38	413/32	413 x 0.20	1.066	27.08	0.085	2.16	0.047	1.19
85504CY	4	4	21.55	665/32	665 x 0.20	1.227	31.17	0.085	2.16	0.047	1.19
85304CY	4	2	33.86	1045/32	1045 x 0.20	1.431	36.35	0.095	2.41	0.047	1.19

RoHS Compliant CA PROP 65

Xtra-Guard® Continuous Flex Data

C-Track or High Flexing Applications Up to 6 Million Flex Life Cycles
300 V Unshielded, Multiconductor



UL CM
UL AWM 2661
CSA AWM I/II A/B FT4
CSA CMG
CE

Operating Temperature

- +5°C to +105°C (flexing)
- -10°C to +105°C (stationary)

Conductor Color Coding

- Chart D (page 531)
- Jacket color: slate

Materials

- Finely stranded tinned copper conductors
- Lubricated semi-rigid PVC insulation
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

28 AWG (0.09 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86002	2	0.154	3.91	0.040	1.02
86003	3	0.160	4.06	0.040	1.02
86004	4	0.170	4.32	0.040	1.02
86005	5	0.180	4.57	0.040	1.02
86007	7	0.203	5.16	0.040	1.02
86012	12	0.263	6.68	0.040	1.02
86018	18	0.262	6.65	0.040	1.02
86025	25	0.309	7.85	0.040	1.02

26 AWG (0.14 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86102	2	0.162	4.11	0.040	1.02
86103	3	0.168	4.27	0.040	1.02
86104	4	0.179	4.55	0.040	1.02
86105	5	0.191	4.85	0.040	1.02
86107	7	0.217	5.51	0.040	1.02
86112	12	0.283	7.19	0.040	1.02
86118	18	0.282	7.16	0.040	1.02
86125	25	0.335	8.51	0.040	1.02

24 AWG (0.20 mm²)

Stranding: 10/34 (10 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86202	2	0.172	4.37	0.040	1.02
86203	3	0.179	4.55	0.040	1.02
86204	4	0.191	4.85	0.040	1.02
86205	5	0.205	5.21	0.040	1.02
86207	7	0.233	5.92	0.040	1.02
86212	12	0.307	7.80	0.040	1.02
86218	18	0.307	7.80	0.040	1.02
86225	25	0.376	9.55	0.045	1.14

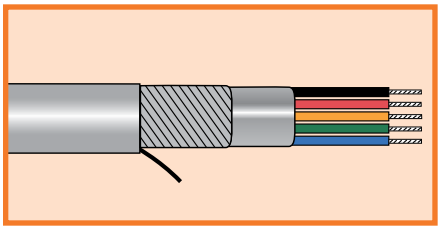
22 AWG (0.38 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86302	2	0.188	4.78	0.040	1.02
86303	3	0.197	5.00	0.040	1.02
86304	4	0.211	5.36	0.040	1.02
86305	5	0.227	5.77	0.040	1.02
86307	7	0.260	6.60	0.040	1.02
86312	12	0.347	8.81	0.040	1.02
86318	18	0.347	8.81	0.040	1.02
86325	25	0.426	10.82	0.045	1.14

Xtra-Guard® Continuous Flex Data

C-Track or High Flexing Applications Up to 6 Million Flex Life Cycles
300 V Foil/Spiral Shield, Multiconductor



UL CM
UL AWM 2661
CSA AWM I/II A/B FT4
CSA CMG
CE

Operating Temperature

- +5°C to 105°C (flexing)
- -10°C to 105°C (stationary)

Conductor Color Coding

- Chart D (page 531)
- Jacket color: slate

Materials

- Finely stranded tinned copper conductors
- Lubricated semi-rigid PVC insulation
- Foil +spiral shield
  Aluminum/polyester foil shield, 25% overlap min.
  Foil facing outward
  Tinned copper spiral shield, 90% coverage
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

28 AWG (0.09 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86002CY	2	0.174	4.42	0.040	1.02
86003CY	3	0.180	4.57	0.040	1.02
86004CY	4	0.190	4.83	0.040	1.02
86005CY	5	0.200	5.08	0.040	1.02
86007CY	7	0.223	5.66	0.040	1.02
86012CY	12	0.283	7.19	0.040	1.02
86018CY	18	0.282	7.16	0.040	1.02
86025CY	25	0.329	8.36	0.040	1.02

26 AWG (0.14 mm²)

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

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86102CY	2	0.182	4.62	0.040	1.02
86103CY	3	0.188	4.78	0.040	1.02
86104CY	4	0.199	5.05	0.040	1.02
86105CY	5	0.211	5.36	0.040	1.02
86107CY	7	0.237	6.02	0.040	1.02
86112CY	12	0.303	7.70	0.040	1.02
86118CY	18	0.302	7.67	0.040	1.02
86125CY	25	0.355	9.02	0.040	1.02

24 AWG (0.20 mm²)

Stranding: 10/34 (10 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86202CY	2	0.192	4.88	0.040	1.02
86203CY	3	0.199	5.05	0.040	1.02
86204CY	4	0.211	5.36	0.040	1.02
86205CY	5	0.225	5.72	0.040	1.02
86207CY	7	0.253	6.43	0.040	1.02
86212CY	12	0.327	8.31	0.040	1.02
86218CY	18	0.327	8.31	0.040	1.02
86225CY	25	0.396	10.06	0.045	1.14

22 AWG (0.38 mm2)

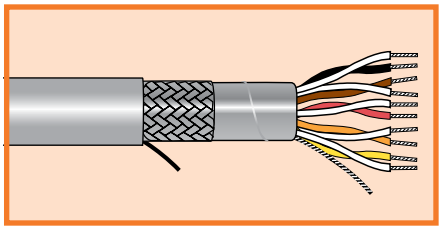
Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86302CY	2	0.208	5.28	0.040	1.02
86303CY	3	0.217	5.51	0.040	1.02
86304CY	4	0.231	5.87	0.040	1.02
86305CY	5	0.247	6.27	0.040	1.02
86307CY	7	0.280	7.11	0.040	1.02
86312CY	12	0.367	9.32	0.040	1.02
86318CY	18	0.367	9.32	0.040	1.02
86325CY	25	0.446	11.33	0.045	1.14

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

Xtra-Guard® Continuous Flex Data

C-Track or High Flexing Applications Up to 6 Million Flex Life Cycles
300 V Foil/Braid Shield, Multipair



UL CM
UL AWM 2661
CSA AWM I/II A/B FT4
CSA CMG
CE

Operating Temperature

- +5°C to +105°C (flexing)
- -10°C to +105°C (stationary)

Conductor Color Coding

- Chart A (page 528)
- Jacket color: slate

Materials

- Finely stranded tinned copper conductors
- Lubricated semi-rigid PVC insulation
- Shield: Combination foil and braid
  Aluminum/polyester foil shield, with 25% overlap and tinned copper drain wire
  Tinned copper braid with 85% coverage
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

28 AWG (0.09 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86401CY	1	0.186	4.72	0.040	1.02
86402CY	2	0.231	5.87	0.040	1.02
86403CY	3	0.240	6.10	0.040	1.02
86404CY	4	0.256	6.50	0.040	1.02
86405CY	5	0.274	6.96	0.040	1.02
86406CY	6	0.293	7.44	0.040	1.02
86408CY	8	0.331	8.41	0.040	1.02
86410CY	10	0.365	9.27	0.045	1.14
86414CY	14	0.381	9.68	0.045	1.14

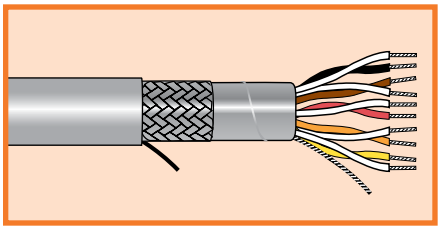
26 AWG (0.14 mm²)

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

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86501CY	1	0.194	4.93	0.040	1.02
86502CY	2	0.244	6.20	0.040	1.02
86503CY	3	0.254	6.45	0.040	1.02
86504CY	4	0.272	6.91	0.040	1.02
86505CY	5	0.292	7.42	0.040	1.02
86506CY	6	0.313	7.95	0.040	1.02
86508CY	8	0.355	9.02	0.040	1.02
86510CY	10	0.392	9.96	0.045	1.14
86514CY	14	0.426	10.82	0.053	1.35

Xtra-Guard® Continuous Flex Data

C-Track or High Flexing Applications Up to 6 Million Flex Life Cycles
300 V Foil/Braid Shield, Multipair



UL CM
UL AWM 2661
CSA AWM I/II A/B FT4
CSA CMG
CE

Operating Temperature

- +5°C to +105°C (flexing)
- -10°C to +105°C (stationary)

Conductor Color Coding

- Chart A (page 528)
- Jacket color: slate

Materials

- Finely stranded tinned copper conductors
- Lubricated semi-rigid PVC insulation
- Shield: Combination foil and braid
  Aluminum/polyester foil shield, with 25% overlap and tinned copper drain wire
  Tinned copper braid with 85% coverage
- Oil-resistant PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

24 AWG (0.20 mm²)

Stranding: 10/34 (10 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86601CY	1	0.204	5.18	0.040	1.02
86602CY	2	0.260	6.60	0.040	1.02
86603CY	3	0.272	6.91	0.040	1.02
86604CY	4	0.292	7.42	0.040	1.02
86605CY	5	0.314	7.98	0.040	1.02
86606CY	6	0.337	8.56	0.040	1.02
86608CY	8	0.385	9.78	0.040	1.02
86610CY	10	0.427	10.85	0.045	1.14
86614CY	14	0.463	11.76	0.053	1.35

22 AWG (0.38 mm²)

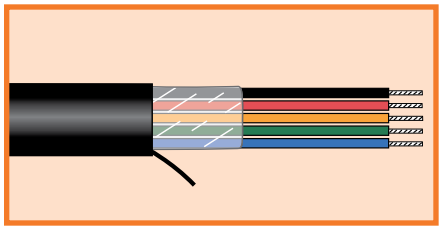
Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
86701CY	1	0.220	5.59	0.040	1.02
86702CY	2	0.287	7.29	0.040	1.02
86703CY	3	0.301	7.65	0.040	1.02
86704CY	4	0.324	8.23	0.040	1.02
86705CY	5	0.350	8.89	0.040	1.02
86706CY	6	0.377	9.58	0.040	1.02
86708CY	8	0.443	11.25	0.045	1.14
86710CY	10	0.497	12.62	0.053	1.35
86714CY	14	0.527	13.39	0.053	1.35

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

Xtra-Guard® Torsional Flex

Torsional Cable with 360° Twisting
600 V Unshielded, Multiconductor



UL AWM 20234
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -10°C to +80°C (flexing)
- -30°C to +80°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Stranded bare copper conductors
- Thermoplastic elastomer insulation
- Oil-resistant polyurethane jacket

Availability

Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87003	3	0.227	5.77	0.050	1.27
87004	4	0.242	6.15	0.050	1.27
87005	5	0.259	6.58	0.050	1.27
87007	7	0.294	7.47	0.050	1.27

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87103	3	0.244	6.20	0.050	1.27
87104	4	0.261	6.63	0.050	1.27
87105	5	0.281	7.14	0.050	1.27
87107	7	0.321	8.15	0.050	1.27

20 AWG (0.62 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87203	3	0.262	6.65	0.050	1.27
87204	4	0.281	7.14	0.050	1.27
87205	5	0.302	7.67	0.050	1.27
87207	7	0.347	8.81	0.050	1.27

18 AWG (0.96 mm²)

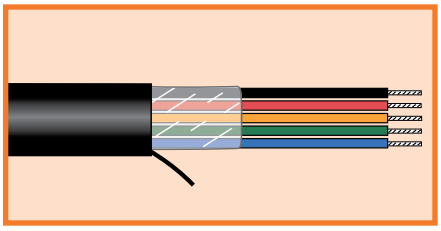
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87303	3	0.283	7.19	0.050	1.27
87304	4	0.305	7.75	0.050	1.27
87305	5	0.329	8.36	0.050	1.27
87307	7	0.380	9.65	0.050	1.27

RoHS Compliant CA PROP 65

Xtra-Guard® Torsional Flex

Torsional Cable with 360° Twisting
600 V Unshielded, Multiconductor



UL AWM 20234
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -10°C to +80°C (flexing)
- -30°C to +80°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Stranded bare copper conductors
- Thermoplastic elastomer insulation
- Oil-resistant polyurethane jacket

Availability

Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87403	3	0.302	7.67	0.050	1.27
87404	4	0.327	8.31	0.050	1.27
87405	5	0.354	8.99	0.050	1.27
87407	7	0.410	10.41	0.050	1.27

14 AWG (2.07 mm²)

Stranding: 19/0.0147 (19 x 0.37 mm)
Insulation thickness: 0.027 (0.69 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87503	3	0.382	9.70	0.050	1.27
87504	4	0.417	10.59	0.050	1.27
87505	5	0.455	11.56	0.050	1.27
87507	7	0.535	13.59	0.050	1.27

12 AWG (3.29 mm²)

Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.027 (0.69 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87603	3	0.444	11.28	0.060	1.52
87604	4	0.483	12.27	0.060	1.52
87605	5	0.526	13.36	0.060	1.52
87607	7	0.618	15.70	0.060	1.52

10 AWG (5.22 mm²)

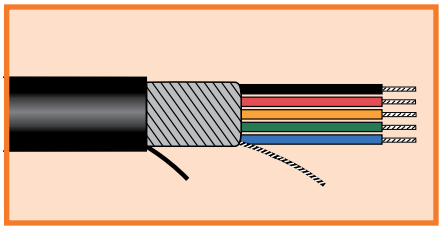
Stranding: 37/0.0167 (37 x 0.42 mm)
Insulation thickness: 0.030 (0.76 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87703	3	0.508	12.90	0.060	1.52
87704	4	0.555	14.10	0.060	1.52
87705	5	0.627	15.93	0.070	1.78
87707	7	0.737	18.72	0.070	1.78

RoHS Compliant CA PROP 65

Xtra-Guard® Torsional Flex

Torsional Cable with 360° Twisting
600 V Shielded, Multiconductor



UL AWM 20234
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -10°C to +80°C (flexing)
- -30°C to +80°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Stranded bare copper conductors
- Thermoplastic elastomer insulation
- Tinned copper spiral shield, 90% coverage
- Oil-resistant polyurethane jacket

Availability

Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87003CY	3	0.246	6.25	0.050	1.27
87004CY	4	0.261	6.63	0.050	1.27
87005CY	5	0.278	7.06	0.050	1.27
87007CY	7	0.313	7.95	0.050	1.27

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87103CY	3	0.263	6.68	0.050	1.27
87104CY	4	0.280	7.11	0.050	1.27
87105CY	5	0.300	7.62	0.050	1.27
87107CY	7	0.340	8.64	0.050	1.27

20 AWG (0.62 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87203CY	3	0.281	7.14	0.050	1.27
87204CY	4	0.300	7.62	0.050	1.27
87205CY	5	0.321	8.15	0.050	1.27
87207CY	7	0.366	9.30	0.050	1.27

18 AWG (0.96 mm²)

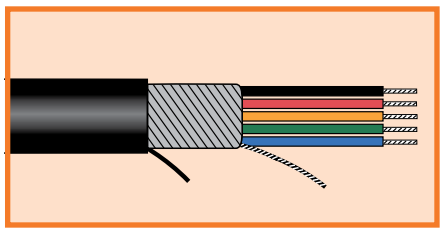
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87303CY	3	0.302	7.67	0.050	1.27
87304CY	4	0.324	8.23	0.050	1.27
87305CY	5	0.348	8.84	0.050	1.27
87307CY	7	0.399	10.13	0.050	1.27

RoHS Compliant CA PROP 65

Xtra-Guard® Torsional Flex

Torsional Cable with 360° Twisting
600 V Shielded, Multiconductor



UL AWM 20234
CSA AWM I/II A/B FT1
CE

Operating Temperature

- -10°C to +80°C (flexing)
- -30°C to +80°C (stationary)

Conductor Color Coding

- Numbered black conductors
- 1 yellow/green ground conductor
- Jacket color: black

Materials

- Stranded bare copper conductors
- Thermoplastic elastomer insulation
- Tinned copper spiral shield, 90% coverage
- Oil-resistant polyurethane jacket

Availability

Bulk, cut to length

FIT® Tubing Recommendations

- FIT-FLEX: Highly flexible, cross-linked silicone rubber
- FIT-650: Chemical/ temperature resistant cross-linked fluoroelastomer

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87403CY	3	0.321	8.15	0.050	1.27
87404CY	4	0.346	8.79	0.050	1.27
87405CY	5	0.373	9.47	0.050	1.27
87407CY	7	0.429	10.90	0.050	1.27

14 AWG (2.07 mm²)

Stranding: 19/0.0147 (19 x 0.37 mm)
Insulation thickness: 0.027 (0.69 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87503CY	3	0.401	10.19	0.050	1.27
87504CY	4	0.436	11.07	0.050	1.27
87505CY	5	0.474	12.04	0.050	1.27
87507CY	7	0.554	14.07	0.050	1.27

12 AWG (3.29 mm²)

Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.027 (0.69 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87603CY	3	0.463	11.76	0.060	1.52
87604CY	4	0.502	12.75	0.060	1.52
87605CY	5	0.545	13.84	0.060	1.52
87607CY	7	0.637	16.18	0.060	1.52

10 AWG (5.22 mm²)

Stranding: 37/0.0167 (37 x 0.42 mm)
Insulation thickness: 0.030 (0.76 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
87703CY	3	0.527	13.39	0.060	1.52
87704CY	4	0.574	14.58	0.060	1.52
87705CY	5	0.646	16.41	0.070	1.78
87707CY	7	0.756	19.20	0.070	1.78

RoHS Compliant CA PROP 65