

CABLE FINDER GUIDE

CONDUCTOR SIZE 18 AWG

METRIC
0,97mm²

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SHIELD TYPE						MULTICONDUCTOR			MULTIPAIR		
	Cable Type	Materials◆		Ratings		No. of Conductors	Alpha Series	Page Number	No. of Pairs	Alpha Series	Page Number
UNSHIELDED	XTRA•GUARD® 1	PVC	PVC	80°C	300	2 - 60	5062C	25	2 - 12	5032C	39
	XTRA•GUARD® 1	PVC	PVC	105°C	600	2 - 25	5422	27			
	XTRA•GUARD® 1	PVC	PVC	80°C	300						
	XTRA•GUARD® 2	PVC	PU	90°C	300	2 - 25	25062	45			
	XTRA•GUARD® 2	PVC	PU	105°C	600	2 - 12	25422	46			
	XTRA•GUARD® 3	PVC	PE	80°C	300	2 - 15	35062	56			
	XTRA•GUARD® 4	TPE	TPE	125°C	300	2 - 25	45062	65	1 - 2	45031	73
	XTRA•GUARD® 4	TPE	TPE	125°C	600	2 - 9	45422	66			
	XTRA•GUARD® 4	TPE	TPE	125°C	300						
	XTRA•GUARD® 5	FEP	FEP	150°C	300	2 - 12	55062	81			
	Commercial	PVC	PVC	80°C	300	2 - 25	1897C	182	1 - 19	1131C	212
	Commercial	PVC	PVC	80°C	300						
	Irradiated PVC	IRR/PVC	PVC	80°C	600	2 - 4	6652	184			
	SVO	RUB	NEO	60°C	300	2	1931	310			
	SJO	RUB	NEO	60°C	300	2	1932	310			
	SO	RUB	NEO	60°C	600	2	1934	310			
	SJT	PVC	PVC	60°C	300	3	1952/3T	311			
	SVT	PVC	PVC	60°C	300	3	1951/3T	311			
	SJ	RUB	RUB	60°C	300	3	1952/3	311			
	SV	RUB	RUB	60°C	300	3	1951/3	311			
	SJO	RUB	NEO	60°C	300	3	1932/3	312			
	SO	RUB	NEO	60°C	600	3	1934/3	312			
	SJT	PVC	PVC	60°C	300	3	1941/3	312			
	SO	RUB	NEO	60°C	600	4	1934/4	312			
	SO	RUB	NEO	60°C	600	6 - 10	4506	313			
	PLTC	PVC	PVC	105°C	300				1	5600B1801	320
	TC	PVC/Nylon	PVC	90°C	600				1	5606B1801	323
	XTRA•GUARD®										
	Flexible Cables	PVC	PVC	90°C	600	2 - 41	65802	90			
	Flexible Cables	PVC	PVC	90°C	600	3 - 34	85803	92			
	Flexible Cables	TPE	TPE	80°C	600	3 - 7	87303	96			
	BUILDING ZONE										
	Riser-Rated	PVC	PVC	60°C	300	2 - 4	8901R	248			
	Plenum-Rated	PVC	PVC	60°C	300	2 - 4	8901P	249			
	Riser-Rated	PVC	PVC	60°C	300	2 - 4	8707R	244			
	Plenum-Rated	PVC	PVC	60°C	300	2 - 4	8707P	245			
	Riser-Rated	PVC	PVC	60°C	300				2 - 4	8804R	246
	Plenum-Rated	PVC	PVC	60°C	300				2 - 4	8804P	247
OVERALL FOIL SHIELD	XTRA•GUARD® 1	PVC	PVC	80°C	300	2 - 60	5382C	30	3 - 6	5373C	40
	XTRA•GUARD® 1	PVC	PVC	105°C	600	2 - 25	5430/2	32			
	XTRA•GUARD® 1	PVC	PVC	80°C	300						
	XTRA•GUARD® 2	PVC	PU	90°C	300	2 - 50	25382	48			
	XTRA•GUARD® 2	PVC	PU	105°C	600	2 - 19	25430/2	49	2 - 12	25372	53
	XTRA•GUARD® 2	PVC	PU	90°C	300						
	XTRA•GUARD® 3	PVC	PE	80°C	300	2 - 25	35382	58	2 - 6	35372	61
	XTRA•GUARD® 3	PVC	PE	80°C	600	2 - 12	35430/2	59			
	XTRA•GUARD® 3	PVC	PE	80°C	300				1 - 19	45371	75
	XTRA•GUARD® 4	TPE	TPE	125°C	300	2 - 30	45382	68			
	XTRA•GUARD® 4	TPE	TPE	125°C	600	2 - 12	45430/2	69			
	XTRA•GUARD® 4	TPE	TPE	125°C	300						
	XTRA•GUARD® 5	FEP	FEP	150°C	300	2 - 12	55382	83	1 - 19	55371	87
	XTRA•GUARD® 5	FEP	FEP	150°C	300						
	Commercial	PE	PVC	75°C	300	2 - 4	2421C	187	1 - 19	2241C	215
	Commercial	PVC	PVC	80°C	300						
	Commercial PLTC	PVC	PVC	90°C	300				2 - 15	6427	216
	Plenum	PVC	PVC		150	2 - 4	58431	236			



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FLAT CABLE

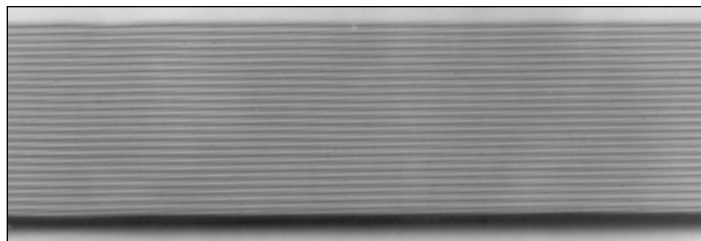
GRAY FLAT CABLE

0.025" CENTERS

150 VOLT
UL STYLE 2962

GRAY FLAT CABLE APPLICATIONS:

- Easy Termination to 0.025" IDC Connectors
- For Situations Where Reduced Crosstalk is Necessary such as High-Speed Data Transmissions in Computers, Cash Registers and Communications Equipment



CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 105°C

VOLTAGE RATING:

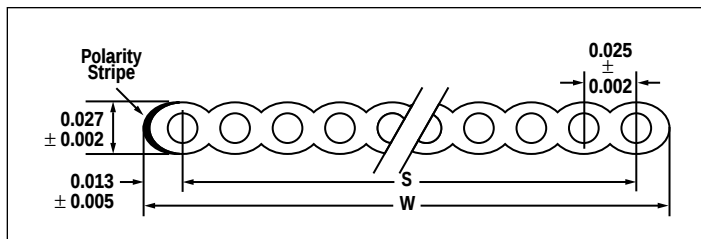
- 300 Volt

COLOR DESCRIPTION:

- Color Code: Gray with Red Stripe on Leading Edge

PRODUCT DESCRIPTION:

- Conductor: Solid Bare Copper Conductors on 0.025" (0,64mm) Centers
- Insulation: PVC



30 AWG Solid, Insulation Thickness: **0.010"** (0,25mm)

Alpha Part No.	No. of Conductors	Nominal Overall Width (W)		Nominal Span (S)	
		Inches	mm	Inches	mm
3582/26	26	0.650 ± 0.007	16,51 ± 0,18	0.625 ± 0.007	15,88 ± 0,18
3582/40	40	1.00 ± 0.007	25,40 ± 0,18	0.975 ± 0.007	24,76 ± 0,18
3582/50	50	1.25 ± 0.010	31,75 ± 0,25	1.225 ± 0.007	31,15 ± 0,18
3582/60	60	1.50 ± 0.010	38,10 ± 0,25	1.475 ± 0.007	37,46 ± 0,18

SPECIFICATIONS

- Capacitance: 25 pF/ft (82 pF/m) Nom. at 1KHz
- Time Delay: 1.62 ns/ft
- Impedance: 80 Ohms
- UL AWM Style 2962



Underwriters Laboratories Inc.



Passes
UL VW-1 Flame Test
Underwriters Laboratories Inc.

AVAILABILITY

- 100 ft (30,5m) put-ups may contain multiple lengths



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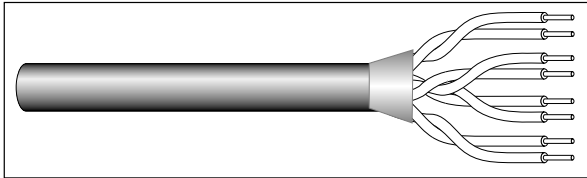
LOCAL AREA NETWORK

SHIELDED TWISTED PAIR (STP)

CATEGORY 5

PLENUM AND
NON-PLENUM

SHIELDED TWISTED PAIR (STP) SOLID CONDUCTOR, CATEGORY 5, 100 Mbps.



Alpha Part No.	Rating	Ohms
9504CS	Non-Plenum	See Chart at Right
9504FS	Plenum	See Chart at Right

Nominal Impedance
Ohms @ MHz

100 ± 15%
1.0-100 MHz

COLOR CODE INFORMATION

Alpha Part Nos.: **9504CS** & **9504FS**
 Pair 1: Blue/White, White/Blue
 Pair 2: Orange/White, White/Orange
 Pair 3: Green/White, White/Green
 Pair 4: Brown/White, White/Brown

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PRODUCT DESCRIPTION

Alpha Part No.	Application	Conductor		Insulation Material* Thickness Diameter Inches (mm)	Shield Material* DCR Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Maximum Capacitance pF / FT (pF / m)	Maximum Attenuation dB / 100' (dB / 100m) @ MHz	Minimum Near End Cross-Talk dB 100' (dB / 100M) @ MHz
		No. of Pairs	AWG Stranding Material* DCR Ohms / 1000' (/ Km)							
9504CS 300V / 60°C Type CMR CMR FT4 Non-Plenum Rated	TIA/EIA 568-A, Category 5 ICEA 661, Category 5 NEMA WC-63.1 Category 5	4	24 Solid BC 28.4 (98,2) Max.	Flame Retardant PE 0.009 (0,23) 0.038 (0,97)	A/P 100% 28.4 (93,2)	Gray or Blue PVC 0.260 (6,60)	66	17 (55,8) @ 1 KHz 17 (55,8) @ 1 MHz	0.63 (2,07) @ 1.0 1.3 (4,26) @ 4.0 1.8 (5,90) @ 8.0 2.0 (6,56) @ 10.0 2.5 (8,20) @ 16.0 2.8 (9,18) @ 20.0 3.2 (10,5) @ 25.0 3.6 (11,8) @ 31.25 5.2 (17,1) @ 62.5 6.7 (22,0) @ 100	19.0 (62,3) @ 1.0 16.2 (53,3) @ 4.0 14.9 (48,8) @ 8.0 14.4 (47,3) @ 10.0 13.5 (44,3) @ 16.0 13.0 (42,8) @ 20.0 12.6 (41,3) @ 25.0 12.2 (39,9) @ 31.25 10.8 (35,4) @ 62.5 9.8 (32,3) @ 100
9504FS 300V / 60°C Type CMP CMP FT6 Plenum Rated	TIA/EIA 568-A, Category 5 ICEA 661, Category 5 NEMA WC-63.1 Category 5	4	24 Solid BC 28.4 (98,2) Max.	FEP Teflon* 0.007 (0,18) 0.034 (0,86)	A/P 100% 28.4 (93,2)	Gray or Blue Plenum-PVC 0.240 (6,10)	73	17 (55,8) @ 1 KHz 17 (55,8) @ 1 MHz	0.63 (2,07) @ 1.0 1.3 (4,26) @ 4.0 1.8 (5,90) @ 8.0 2.0 (6,56) @ 10.0 2.5 (8,20) @ 16.0 2.8 (9,18) @ 20.0 3.2 (10,5) @ 25.0 3.6 (11,8) @ 31.25 5.2 (17,1) @ 62.5 6.7 (22,0) @ 100	19.0 (62,3) @ 1.0 16.2 (53,3) @ 4.0 14.9 (48,8) @ 8.0 14.4 (47,3) @ 10.0 13.5 (44,3) @ 16.0 13.0 (42,8) @ 20.0 12.6 (41,3) @ 25.0 12.2 (39,9) @ 31.25 10.8 (35,4) @ 62.5 9.8 (32,3) @ 100

*Refer to Materials Abbreviation Guide on Page 254

*Registered trademark of E.I. DuPont Co.

SPECIFICATIONS

UL LISTED

AVAILABILITY

■ See Page 275 for available put-ups

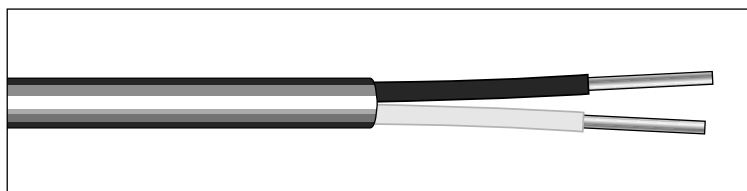
BUILDING ZONE FACILITIES MANAGEMENT CABLE

300 VOLT
UL TYPE FPLP

FIRE ALARM CABLE, UNSHIELDED & FOIL SHIELDED
PLENUM-RATED PVC

APPLICATIONS

- Addressable and Analog Fire Alarm Systems
- Smoke Detectors
- Voice EVAC Systems
- Power Limited Fire-Protective-Signaling Circuit Cable



CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 60°C

VOLTAGE RATING:

- 300 Volt

COLOR DESCRIPTION:

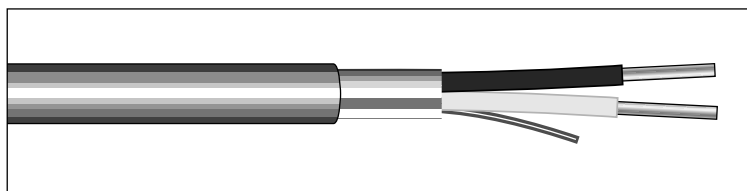
- Color Code: Red, Black, White, Green
- Jacket Color: Red, Sequentially Footage Marked

PRODUCT DESCRIPTION:

- Conductor: Solid Bare Copper
- Insulation: Color-Coded PVC
- Shield: Aluminum/Polyester With A Solid Tinned Copper Drain Wire
- Jacket: Plenum-Rated PVC

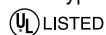
FIRE ALARM, UNSHIELDED PLENUM

Alpha Part No.	No. of Cond.	Cond. AWG Size	Stranding	Jacket Thickness Inches	Jacket Thickness mm	Diameter Inches	Diameter mm
▲8901P	2	18	Solid	0.014	0,36	0.14	3,56
▲8902P	4	18	Solid	0.014	0,36	0.18	4,57
8903P	2	16	Solid	0.014	0,36	0.16	4,06
8904P	4	16	Solid	0.014	0,36	0.19	4,83
8905P	2	14	Solid	0.014	0,36	0.19	4,83
8906P	4	14	Solid	0.014	0,36	0.23	5,84
8907P	2	12	Solid	0.014	0,36	0.23	5,84



SPECIFICATIONS

- UL Type FPLP



AVAILABILITY

- 1000 ft (305m) put-ups
- ▲ Also available in 1000 ft (305m) boxed payout put-ups

FIRE ALARM, FOIL SHIELDED PLENUM

Alpha Part No.	No. of Cond.	Cond. AWG Size	Stranding	Jacket Thickness Inches	Jacket Thickness mm	Diameter Inches	Diameter mm
▲8908P	2	18	Solid	0.014	0,36	0.14	3,56
8909P	3	18	Solid	0.014	0,36	0.15	3,81
▲8910P	4	18	Solid	0.014	0,36	0.18	4,57
8911P	2	16	Solid	0.014	0,36	0.16	4,06
8912P	4	16	Solid	0.014	0,36	0.19	4,83
8913P	2	14	Solid	0.014	0,36	0.18	4,57
8914P	4	14	Solid	0.014	0,36	0.24	6,09

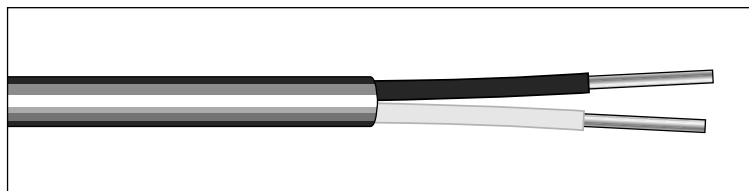
BUILDING ZONE FACILITIES MANAGEMENT CABLE

FIRE ALARM CABLE, UNSHIELDED & FOIL SHIELDED RISER-RATED PVC

300 VOLT
UL TYPE FPLR

APPLICATIONS

- Addressable and Analog Fire Alarm Systems
- Smoke Detectors
- Voice EVAC Systems
- Power Limited Fire-Protective-Signaling Circuit Cable



CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 60°C

VOLTAGE RATING:

- 300 Volt

COLOR DESCRIPTION:

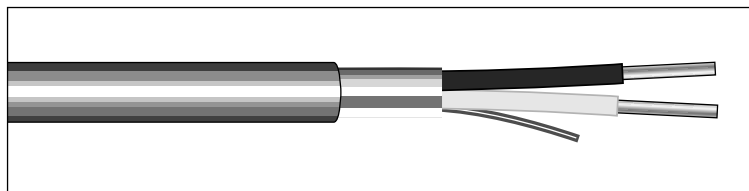
- Color Code: Red, Black, White, Green
- Jacket Color: Red, Sequentially Footage Marked

PRODUCT DESCRIPTION:

- Conductor: Solid Bare Copper
- Insulation: Color-Coded PVC
- Shield: Aluminum/Polyester With A Solid Tinned Copper Drain Wire
- Jacket: PVC

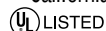
FIRE ALARM, UNSHIELDED RISER

Alpha Part No.	No. of Cond.	Cond. AWG Size	Stranding	Jacket Thickness		Diameter	
				Inches	mm	Inches	mm
▲8901R	2	18	Solid	0.015	0,38	0.14	3,56
▲8902R	4	18	Solid	0.015	0,38	0.17	4,32
8903R	2	16	Solid	0.015	0,38	0.17	4,32
8904R	4	16	Solid	0.015	0,38	0.20	5,08
8905R	2	14	Solid	0.018	0,46	0.21	5,33
8906R	4	14	Solid	0.018	0,46	0.24	6,09
8907R	2	12	Solid	0.018	0,46	0.24	6,10



SPECIFICATIONS

- UL Type FPLR
- California State Fire Marshall Listed



AVAILABILITY

- 1000 ft (305m) put-ups
- ▲ Also available in 1000 ft (305m) boxed payout put-ups

FIRE ALARM, FOIL SHIELDED RISER

Alpha Part No.	No. of Cond.	Cond. AWG Size	Stranding	Jacket Thickness		Diameter	
				Inches	mm	Inches	mm
▲8908R	2	18	Solid	0.020	0,51	0.17	4,32
8909R	3	18	Solid	0.020	0,51	0.18	4,57
▲8910R	4	18	Solid	0.020	0,51	0.20	5,08
8911R	2	16	Solid	0.020	0,51	0.19	4,83
8912R	4	16	Solid	0.020	0,51	0.22	5,59
8913R	2	14	Solid	0.020	0,51	0.22	5,59
8914R	4	14	Solid	0.020	0,51	0.26	6,60



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CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 80°C – AWM
- 75°C – CM

VOLTAGE RATING:

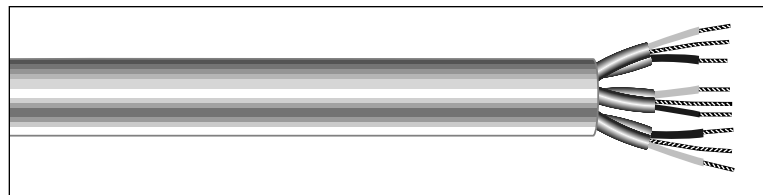
- 300 Volt

COLOR DESCRIPTION:

- Color Code: Chart A Page 374
- Jacket Color: Gray

PRODUCT DESCRIPTION:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded PVC
- Shield: Individually Foil Shielded Pairs
Foil Facing In
- Drain Wire: Stranded Tinned Copper
- Jacket: PVC



80°C 300V PVC

22 AWG (0,35mm²), **7/30** (7x0,25mm), Insulation Thickness: **0.016"** (0,41mm)

Alpha Part No.	No. of Pairs	Jacket Thickness		Diameter		Drain Wire	
		Inches	mm	Inches	mm	AWG	Strand
6052C	2	0.043	1,09	0.31	8,0	22	7/30
6053C	3	0.043	1,09	0.33	8,4	22	7/30
6054C	4	0.043	1,09	0.36	9,1	22	7/30
6056C	6	0.053	1,35	0.43	10,9	22	7/30
6059C	9	0.053	1,35	0.50	12,7	22	7/30
▲ 6059/11C	11	0.053	1,35	0.55	14,0	22	7/30
6059/15C	15	0.053	1,35	0.60	15,3	22	7/30
6059/19C	19	0.063	1,60	0.64	16,4	22	7/30
6059/27C	27	0.063	1,60	0.77	19,7	22	7/30

SPECIFICATIONS

- UL Type CM, AWM 2464
- CSA CMG FT4
- Passes UL Vertical Tray Flame Test



Passes
UL VW-1 Flame Test
Underwriters Laboratories Inc.



Canadian Standards Association

AVAILABILITY

- 100 ft (30,5m), 500 ft (152m),
1000 ft (305m) put-ups
- ▲ 1000 ft (305m) put-ups

18 AWG (0,81mm²), 16/30 (16x0,25mm), Insulation Thickness: 0.016" (0,41mm)

Alpha Part No.	No. of Pairs	Jacket Thickness		Diameter		Drain Wire	
		Inches	mm	Inches	mm	AWG	Strand
6062C	2	0.043	1,09	0.38	9,6	20	10/30
6063C	3	0.053	1,35	0.42	10,6	20	10/30
6064C	4	0.053	1,35	0.45	11,5	20	10/30
6066C	6	0.053	1,35	0.52	13,3	20	10/30
6069C	9	0.063	1,60	0.62	15,9	20	10/30
6069/15C	15	0.063	1,60	0.76	19,4	20	10/30

COMMUNICATION & CONTROL

MULTICONDUCTOR, BRAID SHIELD

TFE / FEP TEFLON★

MIL-W-16878E TYPE E
600 VOLT

CHARACTERISTICS

OPERATING TEMPERATURE:

- -65°C to 200°C

VOLTAGE RATING:

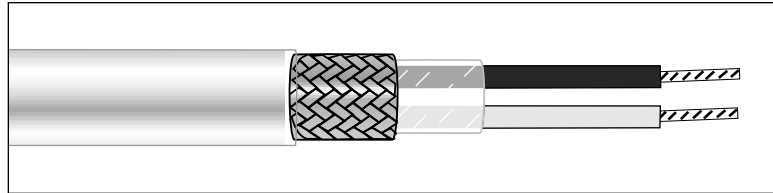
- 600 Volt

COLOR DESCRIPTION:

- Color Code: See Chart Below
- Jacket Color: White

PRODUCT DESCRIPTION:

- Conductor: Stranded Silver-Plated Copper
- Insulation: Color-Coded TFE Teflon★
- Wrap: Clear Polyester (Multiconductor Only)
- Shield: Braided Silver-Plated Copper (90% Coverage)
- Jacket: FEP Teflon★



Insulation Thickness: **0.010"** (0,25mm)

Alpha Part No.	No. of Cond.	Conductor AWG	Strand	Jacket Thickness Inches	Jacket Thickness mm	Diameter Inches	Diameter mm
2831	1	24	19/36	0.010	0,25	0.09	2,2
2831/2	2	24	19/36	0.010	0,25	0.13	3,3
2831/3	3	24	19/36	0.010	0,25	0.14	3,4
2834	1	22	19/34	0.010	0,25	0.09	2,3
2834/2	2	22	19/34	0.010	0,25	0.15	3,8
2834/3	3	22	19/34	0.010	0,25	0.16	4,0
2837/2	2	20	19/32	0.010	0,25	0.17	4,3
2837/3	3	20	19/32	0.010	0,25	0.18	4,5

SPECIFICATIONS

- MIL-W-16878E Type E



AVAILABILITY

- 100 ft (30,5m), 1000 ft (305m) put-ups;
1000 ft put-ups may contain multiple lengths

COLOR CODE CHART

Cond. 1 - White Cond. 2 - Black Cond. 3 - Red

★Teflon® is a registered trademark of E.I. DuPont Co.

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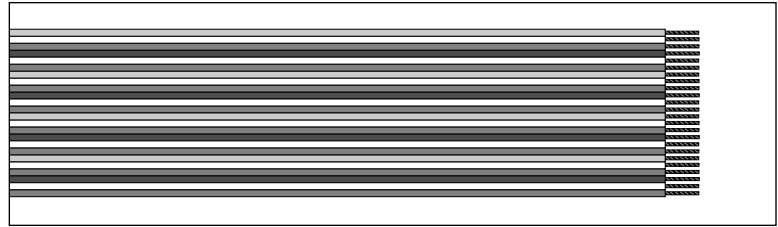
HOOK-UP WIRE

PVC RIBBON CABLE

MIL-W-16878E TYPE B: 105°C, 600 VOLT
UL 2713: 80°C, 300 VOLT
MIL-W-16878E TYPE C: 105°C, 1000 VOLT
UL 2555: 80°C, 300 VOLT

RIBBON CABLE

Ribbon cable is a term that refers to a series of individually color-coded, insulated wires in a flat cable configuration. Bonded flat ribbon cables facilitate easier routing and termination and take up less space than wire harness bundles. Ribbon cable constructions are more flexible than round wire bundles. Ribbon cable constructions can safely carry more current than round harnesses of similar wire gauges and are easy to separate and route within circuits.



CHARACTERISTICS

OPERATING TEMPERATURE:

- -55°C to 105°C

VOLTAGE RATING:

- Type B 600 Volt
- UL 150 Volt
- Type C 1000 Volt
- UL 300 Volt

COLOR DESCRIPTION:

- Color Code: Brown, Red, Orange, Yellow, Green, Blue, Violet, Slate, White, Black (repeat)

PRODUCT DESCRIPTION:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded PVC Conductors Bonded into a Flat Configuration

SPECIFICATIONS

- MIL-W-16878E Type B
- UL AWM Style 2713
- MIL-W-16878E Type C
- UL AWM Style 2555



AVAILABILITY

- 100 ft (30,5m) put-ups

MIL-W-16878E TYPE B: 105°C, 600 VOLT UL STYLE 2713: 80°C, 300 VOLT:

Insulation Thickness: **0.010"** (0,25mm)

Alpha Part No.	No. of Conductors	Conductor		Diameter (Width x Thickness)	
		AWG	Strand	Inches	mm
3530	10	22	19/34	0.510 x 0.051	12,95 x 1,30
3530/7	10	22	7/30	0.510 x 0.051	12,95 x 1,30
3531	15	22	19/34	0.765 x 0.051	19,43 x 1,30
3531/7	15	22	7/30	0.765 x 0.051	19,43 x 1,30
3532	20	22	19/34	1.020 x 0.051	25,91 x 1,30
3532/7	20	22	7/30	1.020 x 0.051	25,91 x 1,30
3533	30	22	19/34	1.530 x 0.051	38,86 x 1,30
3533/7	30	22	7/30	1.530 x 0.051	38,86 x 1,30
3540	10	24	19/36	0.440 x 0.044	11,18 x 1,12
3540/7	10	24	7/32	0.440 x 0.044	11,18 x 1,12
3541	15	24	19/36	0.660 x 0.044	16,76 x 1,12
3541/7	15	24	7/32	0.660 x 0.044	16,76 x 1,12
3542	20	24	19/36	0.880 x 0.044	22,35 x 1,12
3542/7	20	24	7/32	0.880 x 0.044	22,35 x 1,12
3543	30	24	19/36	1.320 x 0.044	33,53 x 1,12
3550	10	26	7/34	0.392 x 0.039	9,96 x 0,99
3550/14	14	26	7/34	0.546 x 0.039	13,87 x 0,99
3551	15	26	7/34	0.587 x 0.039	14,91 x 0,99
3551/16	16	26	7/34	0.624 x 0.039	15,85 x 0,99
3553	30	26	7/34	1.19 x 0.039	30,23 x 0,99

MIL-W-16878E TYPE C: 105°C, 1000 VOLT UL STYLE 2555: 80°C, 300 VOLT

Insulation Thickness: **0.016"** (0,42mm)

Alpha Part No.	No. of Conductors	Conductor		Diameter (Width x Thickness)	
		AWG	Strand	Inches	mm
3505	5	22	7/30	0.320 x 0.065	8,13 x 1,65
3510	10	22	7/30	0.640 x 0.065	16,26 x 1,65
3515	15	22	7/30	0.960 x 0.065	24,38 x 1,65
3520	20	22	7/30	1.29 x 0.065	32,77 x 1,65



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Email: info@alphawire.com

WIRE MANAGEMENT PRODUCTS

SPIRAL WRAP TUBING

SW

SPIRAL WRAP TUBING APPLICATIONS:

- Wire Harness Breakouts
- Cable Bundling

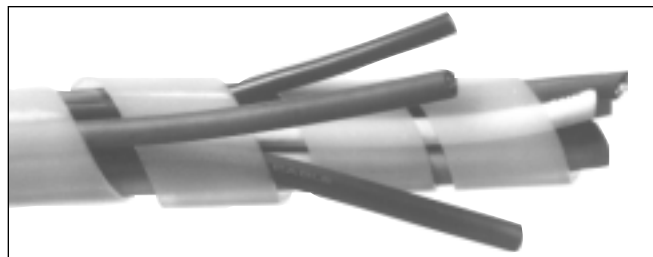
CHARACTERISTICS

OPERATING TEMPERATURE:

- Polyethylene: -20°C to 80°C
- Nylon: -40°C to 120°C
- Teflon*: -70°C to 250°C
- PVC: -20°C to 80°C

COLOR DESCRIPTION:

- SW-1 to 6, SW-20 to 25 and SW-30 to 35: Natural
- SW-10 to 14: White
- SW-40 to 45 and SW-50 to 53: Black



SPIRAL CUT FOR HARNESS BREAKOUTS:

Wire harnessing, cabling and bundling work is simplified with the use of Alpha's SW series spiral wrap tubing. SW tubing wraps tightly to the wire and cable being bundled, yet is flexible and simple to apply. All types maintain flexibility even when bent around sharp edges. Breakouts or tapoff connections may be made through the openings of the wrap. SW spiral wrap is constructed from several semi-rigid tubing materials and then cut on a continual spiral.

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Alpha Part No.	Size In.	Standard Materials	Standard Put-Up Ft.	Max. Oper. Temp.	Min. Oper. Temp.	Nom. O.D. Inches	Nominal Wall Thickness Inches	Max. Diam. Inner Wire Bundle Inches	Flammability
SW-1	1/8	CLEAR POLYETHYLENE Ideal for general indoor applications. This cost-effective material is extremely abrasion resistant and is unaffected by most solvents.	25, 100, 500	80°C (176°F)	-20°C (-4°F)	0.125	0.031	1/2	Not Flame Retardant.
SW-2	1/4		25, 100, 500			0.250	0.046	2	
SW-3	3/8		25, 100			0.375	0.052	3	
SW-4	1/2		25, 100			0.500	0.062	4	
SW-5	3/4		25, 100, 500			0.750	0.065	5	
SW-6	1		25, 100, 500			1.000	0.095	6	
SW-10	1/8	FIRE RESISTANT POLYETHYLENE A cost-effective alternative to Nylon or Teflon*. This special material is self-extinguishing.	25, 100, 500	80°C (176°F)	-20°C (-4°F)	0.125	0.031	1/2	94V-0
SW-11	1/4		25, 100, 500			0.250	0.046	2	
SW-12	3/8		25, 100			0.375	0.052	3	
SW-13	1/2		25, 100			0.500	0.062	4	
SW-14	3/4		25, 100			0.750	0.065	5	
SW-20	1/8	NYLON Highly specialized product that is tough, durable, self-extinguishing, abrasion resistant, lightweight. Operates over a wide temp. range.	25, 100, 500	120°C (176°F)	-40°C (-40°F)	0.125	0.016	1/2	94V-2
SW-21	1/4		25, 100, 500			0.250	0.025	2	
SW-22	3/8		25, 100			0.375	0.035	3	
SW-23	1/2		25, 100			0.500	0.035	4	
SW-24	3/4		25, 100			0.750	0.032	5	
SW-25	1		25, 100			1.000	0.032	6	
SW-30	1/8	TEFLON* Self extinguishing, fluorocarbon, resin material. Possesses greatest min. & max. temp. range of any spiral wrap material. Suitable for use in a number of industrial applications.	25, 100	250°C (482°F)	-70°C (-94°F)	0.125	0.030	1/2	Self Extinguishing.
SW-31	1/4		25, 100			0.250	0.030	2	
SW-32	3/8		25, 100			0.375	0.030	2-1/2	
SW-33	1/2		25, 100			0.500	0.030	3	
SW-34	3/4		25, 100			0.750	0.032	3-1/2	
SW-35	1		25, 100			1.000	0.040	4	
SW-40	1/8	ULTRAVIOLET-RESISTANT BLACK POLYETHYLENE Recommended for outdoor use. Same properties as clear polyethylene but contains extra additive for moisture resistance ultraviolet light and rain.	25, 100, 500	80°C (176°F)	-20°C (-4°F)	0.125	0.030	1/2	Not Flame Retardant.
SW-41	1/4		25, 100, 500			0.250	0.045	2	
SW-42	3/8		25, 100			0.375	0.050	3	
SW-43	1/2		25, 100			0.500	0.060	4	
SW-44	3/4		25, 100, 500			0.750	0.065	5	
SW-45	1		25, 100, 500			1.000	0.095	6	
SW-50	1/8	PVC Superior to abrasion resistance, tensile strength, thermal, mechanical & electrical properties. Self-extinguishing flexible product.	25, 100	80°C (176°F)	-20°C (-4°F)	0.125	0.032	1/2	Self Extinguishing.
SW-51	1/4		25, 100			0.250	0.045	2	
SW-52	3/8		25, 100			0.375	0.052	2-1/2	
SW-53	1/2		25, 100			0.500	0.062	3	

*Registered trademark of E.I. DuPont Co.

WIRE MANAGEMENT PRODUCTS

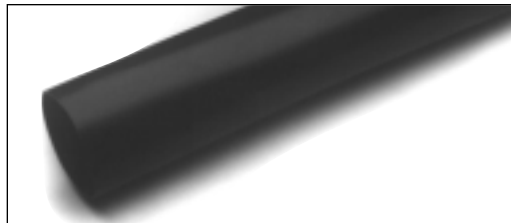
MULTI-PURPOSE PVC TUBING

PVC-105

UL STANDARD 224,
CSA STANDARD 198, MIL-I-631D

CHOOSE PVC TUBING FOR:

- Flexible Wire Protection
- Resistance to Heat, Oil, and Abrasion



In accordance with NEMA standards, may contain more than one length. PVC-105-24 to PVC-105-1 are available air spooled.

PVC TUBING APPLICATIONS:

- Wire Harnesses
- Ground Strap Protection

CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 105°C

COLOR DESCRIPTION:

- Size 24 to 1-1/2 Inches:
Black, Clear
- Size 2 Inches to 2-1/2 Inches:
Black

PHYSICAL PROPERTIES:

- Tensile Strength: 1800 psi,
(127 kg/cm²)
- Ultimate Elongation: 300%
- Specific Gravity: Clear 1.25,
Black 1.35
- Flammability: Self-Extinguishing
(UL VW-1)

CHEMICAL PROPERTIES:

- Corrosive Effect: Non-Corrosive
- Fungus Resistance: No Growth
- Water Absorption: 0.5%

ELECTRICAL PROPERTIES:

- Dielectric Strength: 800V/mil
(315 kV/cm)
- Volume Resistivity: 10¹¹ ohm-cm

SPECIFICATIONS

- UL Standard 224
- CSA Standard 198
- MIL-I-631D

 **Recognized
Component**
Underwriters Laboratories Inc.

 **Passes
UL VW-1 Flame Test**
Underwriters Laboratories Inc.

 **Certified**
Canadian Standards Association

Alpha Part No. and Size (AWG or Inches)	Nominal Inside Diameter		Nominal Wall Thickness		Standard Put-Up Spools (Ft.)
	Inches	mm	Inches	mm	
PVC-105-24	0.022	0,55	0.012	0,30	1000
PVC-105-22	0.027	0,68	0.012	0,30	100, 1000
PVC-105-20	0.034	0,86	0.016	0,41	1000
PVC-105-19	0.038	0,96	0.016	0,41	1000
PVC-105-18	0.042	1,07	0.016	0,41	100, 1000
PVC-105-17	0.047	1,19	0.016	0,41	100, 1000
PVC-105-16	0.053	1,35	0.016	0,41	100, 1000
PVC-105-15	0.059	1,50	0.016	0,41	100, 1000
PVC-105-14	0.066	1,68	0.016	0,41	100, 500
PVC-105-13	0.076	1,93	0.016	0,41	100, 500
PVC-105-12	0.085	2,16	0.016	0,41	500
PVC-105-11	0.095	2,41	0.016	0,41	100, 500
PVC-105-10	0.106	2,69	0.016	0,41	500
PVC-105-9	0.118	3,00	0.020	0,50	500
PVC-105-8	0.133	3,38	0.020	0,50	100, 500
PVC-105-7	0.148	3,76	0.020	0,50	100, 500
PVC-105-6	0.166	4,22	0.020	0,50	100, 500
PVC-105-5	0.186	4,72	0.020	0,50	100, 500
PVC-105-4	0.208	5,28	0.020	0,50	100, 250
PVC-105-3	0.234	5,94	0.020	0,50	100, 250
PVC-105-2	0.263	6,68	0.020	0,50	250
PVC-105-1	0.294	7,47	0.020	0,50	100, 250
PVC-105-0	0.330	8,38	0.020	0,50	100, 250
PVC-105-5/16	0.312	7,92	0.025	0,63	100, 250
PVC-105-3/8	0.375	9,52	0.025	0,63	100, 250
PVC-105-7/16	0.438	11,12	0.025	0,63	100
PVC-105-1/2A	0.500	12,70	0.025	0,63	100
PVC-105-9/16	0.562	14,27	0.030	0,76	100
PVC-105-5/8	0.625	15,87	0.030	0,76	100
PVC-105-3/4	0.750	19,05	0.035	0,88	50
PVC-105-7/8	0.875	22,22	0.035	0,88	50
PVC-105-1 IN	1.000	25,40	0.035	0,88	50
PVC-105-1-1/8	1.125	28,57	0.035	0,88	50
PVC-105-1-1/4	1.250	31,75	0.040	1,02	50
PVC-105-1-1/2	1.500	38,10	0.045	1,14	50
PVC-105-2 IN	2.000	50,80	0.060	1,52	50
PVC-105-2-1/2	2.500	63,50	0.070	1,78	50



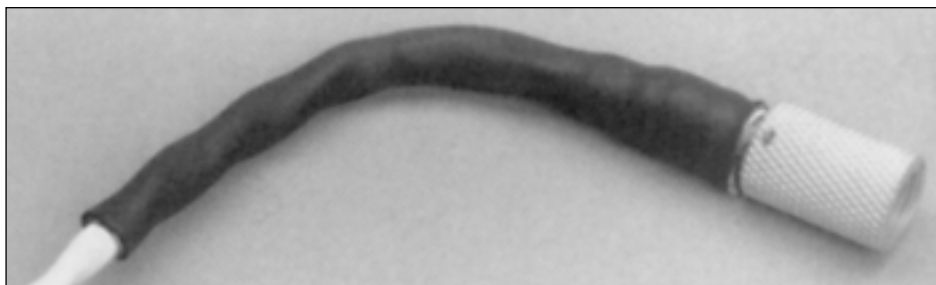
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CHOOSE

FIT®-600 FOR:

- Improved Flexibility
- More than Twice the Tensile Strength of Silicone Rubber
- Large Tubing Diameters
- Oil Resistance and Flame Retardancy
- Abrasion Resistance
- Use with **XTRA**•GUARD® 4



FIT®-600

APPLICATIONS:

- Military and Commercial Harnesses
- Cold Temperature Flexing
- Machine Tool and Automation Equipment
- **XTRA**•GUARD® 4 Applications
- **XTRA**•GUARD® Flexible Cable Applications

CHARACTERISTICS

OPERATING TEMPERATURE:

- -70°C to 121°C

SHRINKAGE RATIO:

- Approximately 1.75 to 1 at 135°C

COLOR DESCRIPTION:

- All Standard Packages: Black

PHYSICAL PROPERTIES:

- Tensile Strength: 1500 psi, (106 kg/cm²)
- Ultimate Elongation: 225%
- Longitudinal Shrinkage: -10%
- Specific Gravity: 1.5
- Flammability: Self-Extinguishing (UL VW-1, CSA OFT)

CHEMICAL PROPERTIES:

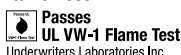
- Corrosive Effect: Non-Corrosive
- Fungus Resistance: Inert
- Water Absorption: 1.0%
- Chemical Resistance: JP4, Aviation Gas, Hydraulic Fluids

ELECTRICAL PROPERTIES:

- Dielectric Strength: 1/4" to 1" 300V/mil (118 kV/cm)
1-1/4" to 3" 200V/mil (79 kV/cm)
- Volume Resistivity: 10¹¹ ohm-cm

SPECIFICATIONS

- MIL-DTL-23053/1C, Class 2†
- MIL-R-46846, Type 1, Class 1†
- UL Standard 224
- CSA Standard 198
- Passes UL VW-1 Flame Test
- Passes CSA OFT Flame Test



† FIT-600 does not contain polychloroprene/neoprene but meets the physical properties of MIL-DTL-23053/1C, Class 2 and MIL-R-46846 Type 1, Class 1 specifications.

Alpha Part No. and Size	Minimum Supplied I.D.		Maximum Rec. I.D.		Nom. Rec. Wall Thickness		Std. Put-Up Spools Feet
	Inches	mm	Inches	mm	Inches	mm	
FIT-600-1/4	0.250	6,35	0.143	3,63	0.035	0,88	25, 150
FIT-600-3/8	0.375	9,53	0.214	5,44	0.040	1,02	25, 150
FIT-600-1/2	0.500	12,70	0.286	7,26	0.048	1,22	25, 150
FIT-600-5/8	0.625	15,90	0.357	9,07	0.052	1,32	25, 150
FIT-600-3/4	0.750	19,10	0.428	10,91	0.057	1,45	25, 100
FIT-600-7/8	0.875	22,22	0.500	12,70	0.065	1,65	25, 100
FIT-600-1	1.000	25,40	0.570	14,58	0.070	1,78	25, 100
FIT-600-1-1/4	1.250	31,75	0.714	18,13	0.087	2,21	25, 100
FIT-600-1-1/2	1.500	38,10	0.857	21,87	0.095	2,41	25, 100
FIT-600-1-3/4	1.750	44,45	1.000	25,40	0.107	2,72	25, 75
FIT-600-2	2.000	50,80	1.140	28,95	0.110	2,79	25, 75
FIT-600-3	3.000	76,20	1.710	43,43	0.125	3,18	25, 50

1.75 TO 1 SHRINK RATIO

Recommended For Use With
XTRA•GUARD® 4
Extra-Protection, High / Low
Temperature TPE Jacketed Cables and
Oil-Resistant
XTRA•GUARD® Flexible Cables
Permanent Solutions For
Critical Flexing Applications!

MIL-DTL-23053/4D,
CLASS 2
UL STANDARD 224

FIT[®]

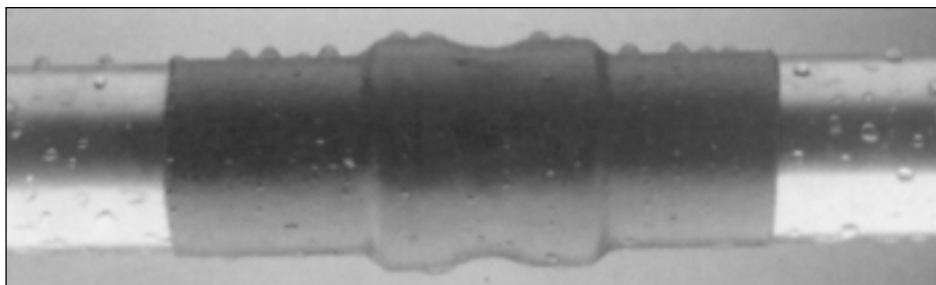
Preferred Heat Shrink Products
BONDING, ADHESIVE-LINED, IRRADIATED POLYOLEFIN
FIT[®]-750

CHOOSE **FIT**[®]-750 FOR:

- Bonding to Substrates
- Similar to **FIT**[®]-221 with Adhesive Liner
- Total Encapsulation
- Reduced Diameters
- Permanent Water and Corrosion Protection
- Internal Isolation of Individual Substrates — “Pinching”
- Use with **XTRA**•**GUARD**[®] 2

FIT[®]-750 APPLICATIONS:

- Moisture Protection of Substrates
- Permanent Sealing of Substrates
- Wire Isolation Within a Harness
- Permanent Joint Splice Repair
- General Purpose Usage with Adhesive
- **XTRA**•**GUARD**[®] 2 Applications



Alpha Part No. and Size	Minimum Supplied I.D.		Std. Nom. Rec. I.D.		Nom. Rec. Wall Thickness		Std. Pkg. 4 Ft. Lengths Total Ftg.
	Inches	mm	Inches	mm	Inches	mm	
FIT-750-1/4	0.250	6,35	0.125	3,18	0.030	0,76	100
FIT-750-3/8	0.375	9,53	0.187	4,75	0.031	0,78	100
FIT-750-1/2	0.500	12,70	0.250	6,35	0.032	0,81	20
FIT-750-3/4	0.750	19,00	0.375	9,53	0.037	0,94	20
FIT-750-1	1.000	25,40	0.500	12,70	0.039	0,99	20
FIT-750-1-1/2	1.500	38,10	0.750	19,00	0.046	1,17	20

CHARACTERISTICS

OPERATING TEMPERATURE:

- -55°C to 110°C

SHRINKAGE RATIO:

- Approximately 2 to 1 at 121°C

COLOR DESCRIPTION:

- All Standard Packages: Black

PHYSICAL PROPERTIES:

- Tensile Strength: 1500 psi, (106 kg/cm²)
- Ultimate Elongation: 200%
- Longitudinal Shrinkage: -10%
- Flammability: Self-Extinguishing (Outer Jacket Only)
- Nominal Recovered Adhesive Thickness:
0.005" to 0.011" (0,13mm to 0,28mm)

CHEMICAL PROPERTIES:

- Corrosive Effect: Non-Corrosive
- Fungus Resistance: Does Not Support Growth
- Water Absorption: 0.5%

ELECTRICAL PROPERTIES:

- Dielectric Strength: 400V/mil (158 kV/cm)
- Volume Resistivity: 10¹² ohm-cm

2 TO 1 SHRINK RATIO

Recommended For Use With
XTRA•**GUARD**[®] 2
Extra-Rugged Polyurethane
Jacketed Cables

SPECIFICATIONS

- MIL-DTL-23053/4D, Class 2
- UL Standard 224



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