



SPEC 44 Wire

SPEC 44 wire has a dual-wall construction that combines the outstanding physical and electrical characteristics of radiation cross-linked polyalkene with the excellent mechanical and chemical resistance of radiation cross-linked polyvinylidene fluoride. SPEC 44 wire's lightweight and small size finds wide use throughout industry, in commercial and military electronics, in avionics and on satellites, aircraft, helicopters, ships, trains and offshore platforms.



Technical Characteristics

Continuous operating temperature	-65°C to +150°C
Voltage rating	600V, 1000V and 2500V
Insulation resistance (20°C)	1500 Mohms/km
Voltage withstand (thin wall 600V)	2500V

Part Numbering System



Primary Wire



Twisted Pair



Screened & Jacketed Single



Screened & Jacketed Pair

44 X X X X X -Size -X/X -X

Jacket Colour

Primary Wire Insulation Colour

0 = Black 3 = Orange 7 = Violet
 1 = Brown 4 = Yellow 8 = Grey
 2 = Red 5 = Green 9 = White
 2L = Pink 6 = Blue
 Additional number after base colour indicates stripe

Conductor Size (AWG)

Conductor Type

1 = Tin-plated copper
 2 = Silver-plated copper

Number of Conductors

1, 2, 3, 4, etc

Voltage Rating

1 = 600V 3 = 2500V
 2 = 1000V 4 = Space wire 600V

Construction

0 = Primary wire
 1 = Round braid screened and jacketed
 2 = Flat braid screened and jacketed
 3 = Round braid screened no jacket
 4 = Jacketed no screen

Type

A = AWG conductor
 M = Metric conductor
 / = Space and specials

Availability

Specifications: MIL-W-81044, NEMA-WC-27500 (cables)
 Def Stan 61-12 Part 18 Issue 4 Type 1 pliable (maintenance range)
 Def Stan 61-12 Part 26
 VG 95218 Parts 20, 21, 22, 23 and 1000
 CAA accessory approval E11623
 NATO Codified
 Lloyds Register of Shipping
 NASA Preferred Product List

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Part Numbering Information

Primary wires/Twisted pair

Size	Stranding (mm)	CSA (mm ²)	44A011X (600V) primary wire		44A021X (1000V) primary wire		44A031X (2500V) primary wire		44A081X (600V) airframe wire		44A012X (600V) twisted pair	
			OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)
30	7/0.10	0.06	0.68	1.00							1.37	2.12
28	7/0.13	0.09	0.76	1.36							1.52	2.90
26*	19/0.10	0.15	0.86	1.98	1.02	2.23			1.22	2.28	1.73	4.10
24	19/0.13	0.25	1.02	2.97	1.17	3.43	1.44	4.18	1.37	3.73	2.03	6.08
22	19/0.16	0.40	1.19	4.38	1.37	4.92	1.75	6.12	1.57	5.52	2.38	8.91
20	19/0.20	0.60	1.40	6.50	1.57	7.30	1.98	8.65	1.78	7.91	2.79	13.30
18	19/0.25	1.00	1.65	9.90	1.85	10.90	2.23	12.38	2.03	11.49	3.30	20.21
16	19/0.29	1.25	1.83	12.58	2.06	13.88	2.46	15.37	2.26	14.32	3.65	25.73
14	19/0.36	2.00	2.26	19.65	2.49	20.90	2.92	23.13	2.74	22.08	4.52	40.15
12	37/0.32	3.00	2.74	30.68	2.98	31.34	3.32	34.32	3.20	32.23	5.48	62.63
10	37/0.40	5.00	3.28	46.28	3.73	50.4	4.09	54.02	3.94	51.80		
8	133/0.29				5.23	87.6	5.56	96.20	5.44	92.94		

*For 44A0211-26 the stranding is 7/0.16mm

Part Numbering Information

Screened & Jacketed cable

Size	Stranding (mm)	44A111X (600V) 1 conductor		44A121X (1000V) 1 conductor		44A181X (600V) 1 conductor		44A112X (600V) 2 conductors	
		OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)	OD (mm)	Weight (g/m)
30	7/0.10							2.23	8.20
28	7/0.13							2.38	9.40
26	19/0.10	1.65	5.82	1.73	6.51			2.59	12.05
24	19/0.13	1.83	8.20	1.98	9.18	2.26	11.69	2.99	16.12
22	19/0.16	2.00	10.30	2.24	12.35	2.57	15.39	3.35	21.50
20	19/0.20	2.26	14.02	2.54	17.40	2.77	19.09	3.76	27.97
18	19/0.25	2.62	19.70	2.82	22.61	3.02	23.98	4.32	38.24
16	19/0.29	2.79	23.40	3.02	26.63	3.25	27.97	4.67	44.93
14	19/0.36	3.22	32.50	3.45	36.15	3.73	38.48	5.53	64.28
12	37/0.32	3.70	45.67	4.14	49.55	4.19	52.10	6.50	91.51

Part Numbering Information

Limited fire hazard equipment wire (pliable) (Def Stan 61-12 Pt 18 Issue 4 Type 1) (Maintenance only)

Conductor size	Stranding (mm)	Diameter over insulation (mm)	Weight (g/m)	Part Number	Cable electrical - Type ISBM Screened & Jacketed			Part Number
					Diameter Over Screen (mm)	Diameter Over Jacket (mm)	Weight (g/m)	
30	7/0.10	0.68	1.00	44M9976-30-X				
28	7/0.12	0.73	1.40	44M9976-28-X				
26	19/0.10	0.88	2.00	44M9976-26-X	1.33	1.80	7.5	44M9995-26-X-X
24	19/0.12	0.98	3.00	44M9976-24-X	1.43	1.90	9.2	44M9995-24-X-X
22	19/0.15	1.13	4.40	44M9976-22-X	1.58	2.05	11.1	44M9995-22-X-X
20	19/0.20	1.40	6.55	44M9976-20-X	1.83	2.30	14.6	44M9995-20-X-X
18	19/0.25	1.65	9.90	44M9976-18-X	2.08	2.55	19.3	44M9995-18-X-X
16	19/0.30	1.90	14.15	44M9976-16-X	2.48	2.95	24.9	44M9995-16-X-X
14	37/0.25	2.25	18.62	44M9976-14-X	2.65	3.13	30.9	44M9995-14-X-X
12	37/0.30	2.60	25.70	44M9976-12-X	3.00	3.48	43.4	44M9995-12-X-X

The cable jackets on type ISBM are specified black to Def Stan 61-12 pt 31, other colours are available.

X = Colour code suffix - see part numbering system. Single and multicore screened and jacketed cables are available using Type I components.

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