

# MaxFlite® 100 Base-T Ethernet Cables



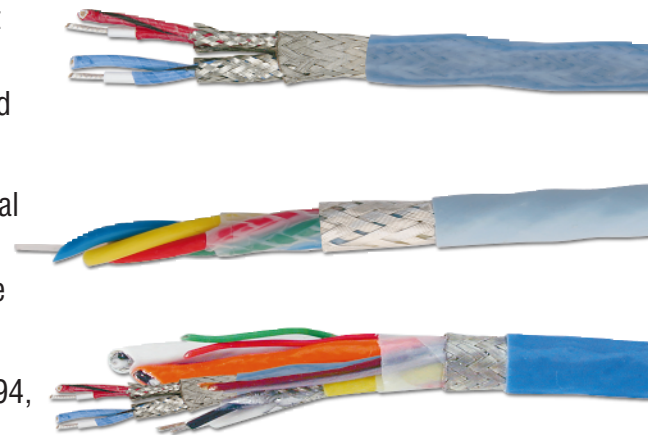
## IFE cables to support today's requirements... and tomorrow's challenges

**MaxFlite** data cables are high-performance, high-speed 100 Base-T Ethernet cables designed for use in aircraft In-Flight Entertainment (IFE) systems. These cables feature our advanced LTE extruded expanded PTFE dielectric for increased velocity of propagation, and are available as quad or twisted-pair constructions.

When used as components in more complex cables (with additional components such as power wires, coaxial cables, or other types), they help provide superior electrical performance to support future increases in bandwidth requirements.

MaxFlite cables are also ideal for other applications using IEEE 1394, ARINC 629, and similar protocols.

*MaxFlite Cables meet the flammability requirements of FAR 25.853, and the smoke and toxicity requirements of Boeing and Airbus ABD0031.*



See other side for specifications and part numbers.

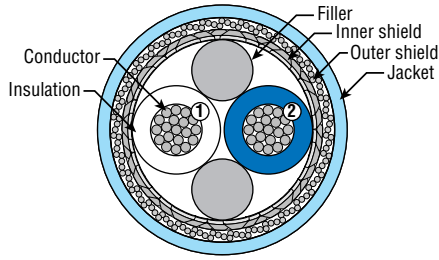
**Thermax** **Belden CDT**

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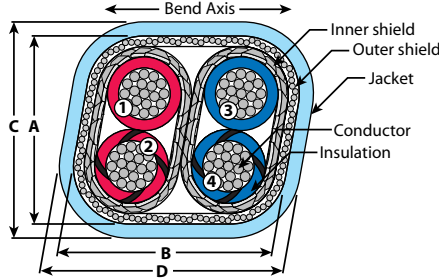
USA East (888) 761-7800 • USA West (800) 423-5873 • Asia (818) 701-0565  
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# MaxFlite® 100 Base-T Ethernet Cables

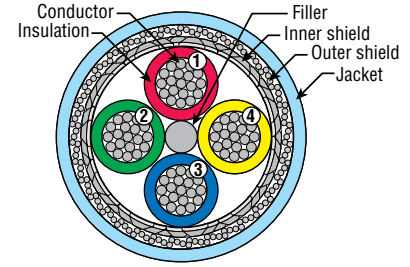
## Shielded Twisted Pair (Single)



## Shielded Twisted Pair (Double)



## Shielded Quad



**Jacket:** Transparent blue FEP.

**Outer shield:** Round tin-plated copper braid, 85% minimum coverage.

**Inner shield:** Flat tin-plated copper braid, 92% minimum coverage.

**Component wire insulation:** LTE extruded expanded PTFE with sintered PTFE tape jacket.

**Component wire conductor:** See tables.

**Identification:** Marker tape under jacket.

**Options:** Other insulation or shield materials and/or plating.

**Temperature rating:** 150° C. Higher temperature ratings (up to 260° C) available with plating other than tin on shield wires.

## Dimensions and Weights—Twisted Pair (Single)

Thermax P/N	Inner Conductor				Insulation Diameter	Inner Shield Diameter		Outer Shield Diameter	Jacket Diameter	Min. Bend Radius	Weight
	AWG	Strands	Diameter	Material							
MX100-22	22	19	.0295 (.75)	SPC	.068 (1.73)	.140 (3.56)	.160 (4.06)	.180 (4.57)	2.0 (51)	26.0 (38.7)	
MX100-24	24	19	.0235 (.60)	SPCA	.054 (1.37)	.110 (2.79)	.125 (3.18)	.145 (3.68)	1.5 (38)	20.0 (29.8)	

## Electrical Performance—Twisted Pair (Single)

Thermax P/N	Differential Impedance	Velocity of Propagation	Capacitance (pF/ft)	Attenuation (dB/100 ft.)		Crosstalk (Next) @100 MHz	Time Delay (Ns/ft.)	Cat. 5e Attenuation Budget (ft.)
				10 MHz	100 MHz			
MX100-22	100Ω ±10%	79%	13.0	1.6	5.5	N/A	1.29	380
MX100-24	100Ω ±10%	79%	13.0	2.1	7.1	N/A	1.29	285

## Dimensions and Weights—Twisted Pair (Double)

Thermax P/N	Inner Conductor				Insulation Diameter	Outer Shield		Jacket		Min. Bend Radius	Weight
	AWG	Strands	Diameter	Material		A	B	C	D		
MX100P-22	22	19	.0295 (.75)	SPC	.071 (1.80)	.163 (4.14)	.276 (7.01)	.195 (4.95)	.300 (7.62)	2.0 (51)	42.0 (62.6)
MX100P-24	24	19	.0235 (.60)	SPC	.063 (1.60)	.150 (3.81)	.250 (6.35)	.175 (4.45)	.275 (6.99)	1.75 (44)	36.0 (53.6)

## Electrical Performance—Twisted Pair (Double)

Thermax P/N	Differential Impedance	Velocity of Propagation	Capacitance (pF/ft)	Attenuation (dB/100 ft.)		Crosstalk (Next) @100 MHz	Time Delay (Ns/ft.)	Cat. 5e Attenuation Budget (ft.)
				10 MHz	100 MHz			
MX100P-22	100Ω ±10%	79%	13.0	2.0	6.5	<-32 dB	1.29	300
MX100P-24	100Ω ±10%	79%	13.0	2.4	7.5	<-32 dB	1.29	280

## Dimensions and Weights—Quad

Thermax P/N	Inner Conductor				Insulation Diameter	Inner Shield Diameter	Outer Shield Diameter	Jacket Diameter	Min. Bend Radius	Weight
	AWG	Strands	Diameter	Material						
MX100Q-22	22	19	.0295 (.75)	SPC	.058 (1.47)	.145 (3.68)	.165 (4.19)	.190 (4.83)	2.0 (51)	35.5 (52.9)
MX100Q-24	24	19	.0235 (.60)	SPCA	.046 (1.17)	.117 (2.97)	.139 (3.53)	.160 (4.06)	1.5 (38)	24.0 (35.8)
MX100Q-26	26	19	.0189 (.48)	SPCA	.038 (.97)	.100 (2.54)	.118 (3.00)	.138 (3.50)	1.25 (32)	19.0 (27.6)

## Electrical Performance—Quad

Thermax P/N	Differential Impedance	Velocity of Propagation	Capacitance (pF/ft)	Attenuation (dB/100 ft.)		Crosstalk (Next) @100 MHz	Time Delay (Ns/ft.)	Cat. 5e Attenuation Budget (ft.)
				10 MHz	100 MHz			
MX100Q-22	100Ω ±10%	79%	13.0	1.7	6.0	<-32 dB	1.29	350
MX100Q-24	100Ω ±10%	79%	13.0	2.4	8.0	<-32 dB	1.29	270
MX100Q-26	100Ω ±10%	79%	13.0	3.0	10.5	<-32 dB	1.29	200

Dimensions in inches (mm). Weights in pounds/1000 feet (Kg/1000 M). All values are nominal unless otherwise indicated.

**SPCA:** Silver-plated high-strength copper alloy. **SPC:** Silver-plated copper.

**Thermax**

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