



Mid-South Control Line

Theoretical Mechanical and Electrical Calculations for TEC
Other alloys, sizes, and voltage ratings available upon request.



Armor			Core			Mechanical Properties			Electrical Properties @ 25°C		
OD	WT	Alloy	Filler	Insulation	Conductor	Min Tensile Strength (psi)	Min Yield Strength (psi)	Theoretical Collapse Pressure ¹ (psi)	Max Conductor Resistance (Ω/1000')	Max Armor Resistance (Ω/1000')	Voltage Rating (V)
150°C Design											
0.250	0.028	316L	Polypropylene	150°C rated Fluoropolymer	18 AWG 7/s TC	112,000	100,000	18,100	7.0	21.0	1000
		16 AWG SBC			4.4				21.0		
		825			18 AWG 7/s TC	130,000	108,000	19,500	7.0	31.0	
					16 AWG SBC				4.4	31.0	
0.250	0.035	316L	Polypropylene	150°C rated Fluoropolymer	18 AWG 7/s TC	112,000	100,000	22,000	7.0	18.0	
		16 AWG SBC			4.4				18.0		
		825			18 AWG 7/s TC	130,000	108,000	23,700	7.0	26.0	
					16 AWG SBC				4.4	26.0	
0.250	0.049	316L	Polypropylene	150°C rated Fluoropolymer	18 AWG 7/s TC	112,000	100,000	29,000	7.0	15.0	
		16 AWG SBC			4.4				15.0		
		825			18 AWG 7/s TC	130,000	108,000	31,300	7.0	19.0	
					16 AWG SBC				4.4	19.0	
200°C Design											
0.250	0.028	316L	200°C rated Fluoropolymer	200°C rated Fluoropolymer	18 AWG 7/s NPC	112,000	100,000	18,100	7.1	21.0	1000
		16 AWG SNPC			4.6				21.0		
		825			18 AWG 7/s NPC	130,000	108,000	19,500	7.1	31.0	
					16 AWG SNPC				4.6	31.0	
0.250	0.035	316L	200°C rated Fluoropolymer	200°C rated Fluoropolymer	18 AWG 7/s NPC	112,000	100,000	22,000	7.1	18.0	
		16 AWG SNPC			4.6				18.0		
		825			18 AWG 7/s NPC	130,000	108,000	23,700	7.1	26.0	
					16 AWG SNPC				4.6	26.0	
0.250	0.049	316L	200°C rated Fluoropolymer	200°C rated Fluoropolymer	18 AWG 7/s NPC	112,000	100,000	29,000	7.1	15.0	
		16 AWG SNPC			4.6				15.0		
		825			18 AWG 7/s NPC	130,000	108,000	31,300	7.1	19.0	
					16 AWG SNPC				4.6	19.0	

¹Theoretical Collapse pressure based on max OD, minimum wall thickness, and minimum yield strength.