

### INSTRUMENT CABLE - #18AWG (SPOS & STOS) SHIELDED PAIRS OR TRIADS WITH OVERALL SHIELD TYPE TC PVC/NYLON INSULATED 90DEG C 600VOLTS

**CONSTRUCTION:**

**CONDUCTOR** 7 STRANDED BARE COPPER.

**INSULATION** POLYVINYL CHLORIDE (PVC) WITH 4 MILS NYLON JACKET TYPE TFN PER UL 72 (GASOLINE AND OIL RESISTANT).

**COLOR CODE** PAIRS ARE CODED BLACK AND WHITE. TRIADS ARE CODED BLACK, WHITE, AND RED. ONE CONDUCTOR IN EACH PAIR OR TRIAD IS ALSO NUMBERED FOR EASE OF IDENTIFICATION.

**PAIRS/TRIADS** INSULATED CONDUCTORS TWISTED INTO PAIRS OR TRIADS WITH AN APPROXIMATE 2" LAY OF TWIST TO REDUCE CROSSTALK. TWISTED PAIRS OR TRIADS INDIVIDUALLY SHIELDED WITH ALUMINUM/MYLAR TAPE SHIELD AND STRANDED TINNED COPPER DRAIN WIRE.

**OVERALL SHIELD** TAPE SHIELD AND STRANDED TINNED COPPER DRAIN WIRE. MYLAR TAPE SHIELD AND STRANDED TINNED COPPER DRAIN WIRE TO PROVIDE 100% SHIELDING COVERAGE.

**JACKET** SUNLIGHT AND MOISTURE RESISTANT, FLAME RETARDANT BLACK PVC.

Charlotte Wire Part#	Size AWG	Number of Pairs	Number of Triads	Insulation Thickness (in.)	Jacket Thickness (in.)	Overall Diameter (in.)	Approx. Net Wt. (Lbs/Mft)
CW05271	18	2		.015"	.050"	.37"	68
CW05286	18	3		.015"	.050"	.47"	102
CW05272	18	4		.015"	.050"	.50"	125
CW05288	18	6		.015"	.060"	.58"	185
CW05273	18	8		.015"	.060"	.67"	235
CW05274	18	12		.015"	.060"	.79"	335
CW05275	18	16		.015"	.080"	.94"	460
CW05276	18	20		.015"	.080"	1.05"	570
CW05277	18	24		.015"	.080"	1.16"	678
CW05278	18	36		.015"	.080"	1.32"	975
CW05279	18	50		.015"	.080"	1.56"	1310
CW05280	18		2	.015"	.045"	.48"	101
CW05281	18		4	.015"	.060"	.56"	180
CW05282	18		8	.015"	.060"	.74"	325
CW05283	18		12	.015"	.080"	.96"	490
CW05284	18		16	.015"	.080"	1.04"	622
CW05285	18		24	.015"	.080"	1.28"	890

\* To specify "ER" rating, add suffix "ER" to Charlotte Wire Part Number.

**APPLICATION:**

Control, Signal, or Lighting circuits rated 600Volts. May be used as sunlight resistant, directly buried and wet or dry locations. Per NEC Articles 336 and 392, approved for installation in

- 1) raceways and cable tray systems including ladders, troughs, channels, solid bottom trays, and other similar structures,
- 2) lighting, control, and signal circuits
- 3) aerial locations where supported by a messenger wire
- 4) hazardous locations per Art.501 Class 1 Division 2,
- 5) Class 1 circuits as permitted in NEC Article 725.

**STANDARDS:**

UL Standard 1277 for Type TC Cables.  
 Passes UL and IEEE383 70,000BTU Flame Test.  
 UL Standard 62 for TFN Conductors.  
 NEC Articles 336 and 392 for Tray Cable uses and constructions.  
 TC-ER rated cables comply with crush and impact requirements of MC cable.