



**FREP/CPE INSTRUMENT CABLE #18AWG (SPOS & STOS)
SINGLE SHIELDED PAIR/TRIAD AND MULTIPLE SHIELDED PAIRS &
TRIADS WITH OVERALL SHIELD TYPE TC 90DEG C 600VOLTS**

CONSTRUCTION:

CONDUCTOR 7 STRANDED TINNED COPPER.

INSULATION THERMOSETTING FLAME RETARDANT ETHYLENE PROPYLENE (FREP).

CONDUCTOR IDENTIFICATION SINGLE PAIR/TRIAD: PAIR IS CODED BLACK-WHITE AND TRIAD IS COLOR CODED BLACK-WHITE-RED.

MULTIPAIRS/TRIADS: PAIRS ARE CODED BLACK-WHITE AND TRIADS ARE CODED BLACK-WHITE-RED. ONE CONDUCTOR IN EACH PAIR OR TRIAD IS ALSO NUMBERED.

PAIRS/TRIADS INSULATED CONDUCTORS TWISTED INTO PAIRS OR TRIADS AND SHIELDED WITH ALUMINUM/MYLAR TAPE SHIELD AND STRANDED TINNED COPPER DRAIN WIRE.

OVERALL SHIELD MULTIPLE SHIELDED PAIRS/TRIADS CABLED TOGETHER WITH OVERALL ALUMINUM/MYLAR TAPE SHIELD AND STRANDED TINNED DRAIN.

JACKET SUNLIGHT RESISTANT, FLAME RETARDANT BLACK CPE.

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)
CW05401	18	1		.025"	.045"	.31"	45
CW05402	18	2		.025"	.045"	.49"	85
CW05403	18	4		.025"	.060"	.60"	160
CW05404	18	8		.025"	.060"	.77"	290
CW05405	18	12		.025"	.080"	.98"	422
CW05406	18	16		.025"	.080"	1.09"	528
CW05407	18	20		.025"	.080"	1.18"	639
CW05408	18	24		.025"	.080"	1.29"	742
CW05409	18	36		.025"	.080"	1.52"	1070
CW05410	18		1	.025"	.045"	.32"	59
CW05411	18		4	.025"	.060"	.69"	210
CW05412	18		8	.025"	.080"	.91"	377
CW05413	18		12	.025"	.080"	1.15"	570

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

**To specify Black/Red pairs or Black/Red/Blue triads, add suffix "K2" to Charlotte Wire Part Number.

APPLICATION:

Suitable for control or instrumentation circuits rated 600Volts in power plants and heavy industrial locations where flame-resistance, stability in heat, physical durability, and excellent reliability is needed. 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 NEC Article 501 Class 1 Division 2, and
- 5) Class 1 circuits as permitted in NEC Article 725.

STANDARDS:

UL 1277 for Type TC Cables.
Passes UL & IEEE383 70,000BTU Flame Test.
ICEA S-95-658/NEMA WC70 for Nonshielded 0 - 2KV Cables.
NEC Articles 336 and 392 for Tray Cable Uses and Constructions.
TC-ER rated cables comply with crush and impact requirements of MC cable.