

Armored Instrumentation Cable UL Type PLTC & ITC, 300 V, 105°C rated - LEAD FREE

## Description

### Application

Single or multiple individually shielded pairs or triads, overall cable shield, PVC inner jacket, continuous corrugated and welded, impervious aluminum sheath, PVC jacket

### Construction

**Conductor:** Bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance with ASTM B8.

**Insulation:** Polyvinyl chloride in accordance with UL 13 and 2250, flame retardant, 105°C temperature rating.

**Insulation shield:** Aluminum foil/polyester shield helically wrapped to provide 100% coverage and tinned copper drain wire that is two gauge sizes smaller than the circuit conductors. These shields are electrically isolated from each other.

**Assembly:** Pairs/triads are cabled in concentric layers with interstices filled with suitable non-hygroscopic fillers, as required. A binder tape of synthetic material assembles the core in an essentially round configuration.

**Overall cable shield:** Aluminum foil/polyester shield helically wrapped to provide 100% coverage and tinned copper drain wire that is the same size as the circuit conductors, with the exception of single pair/triad constructions where the drain wire is two gauge sizes smaller than the circuit conductors.

**Inner jacket:** Polyvinyl chloride jacket, over cabled core as per UL 13 and UL 2250, 90°C temperature rating, with additional resistance to fire spread. A rip cord is laid longitudinally under the jacket to facilitate stripping.

**Armor:** Continuous corrugated and welded, impervious aluminum sheath with no more than 0.2% trace copper providing complete protection against liquid and gas ingress. It also provides excellent mechanical protection, additional electrostatic shielding, and serves as an easy means of grounding equipment.

**Jacket:** Overall black polyvinyl chloride jacket per UL 13 and UL 2250, 90°C temperature rating; low acid gas emission; limited flame spread and excellent corrosion resistance.

### Conductor Identification

**Pairs:** black/white & number coded

**Triads:** black/white/red & number coded

### Bending Radius

**Fixed position:** 7 x cable overall diameter

**During pulling:** 12 x cable overall diameter

### Specifications

- \* Meets UL 13 and UL 2250, rated 105°C 300 V conductor
- \* Meets UL requirements for Type PLTC, power limited circuit cable and ITC, instrumentation tray cable
- \* Designated Type PLTC, Power Limited Tray Cable, per NEC 2008 NEC 2011 Article and ITC, Instrumentation Tray Cable, per NEC 2008 NEC 2011 Article.
- \* Cables are American Bureau of Shipping (ABS) listed as CWC MC Type PLTC.

## Standards

**National** UL 13; UL 2250

### Characteristics

#### Construction characteristics

Armour type Armoured

#### Electrical characteristics

Maximum operating voltage 300 V

#### Usage characteristics

Maximum operating temperature 105 °C

**CORFLEX® MC**  
**CORFLEX® PL**  
 Part Number: CORFLEX® PL

**Multi Pairs, 300 V - 18 AWG (7w) SPOS**

Part Number	# of Pairs	PVC Insulation Thickness (mils)	Nominal Diameter over Core (inches)	Inner Jacket Thickness (mils)	Nominal Diameter over Inner Jacket (inches)	Nominal Diameter over Sheath (inches)	Outer Jacket Thickness (mils)	Nominal Diameter over Outer Jacket (inches)	Approximate Net Cable Weight (lb/kft)
665101	2	15	.306	50	.410	.618	50	.724	225
665102	4	15	.336	50	.440	.618	50	.724	250
*068718	8	15	.472	50	.577	.789	50	.895	430
665103	12	15	.590	60	.714	.961	50	1.067	565
665104	16	15	.687	60	.811	1.181	50	1.289	735
665105	20	15	.788	70	.935	1.181	50	1.289	760
665106	24	15	.818	70	.962	1.370	50	1.478	1040
665107	36	15	.982	70	1.126	1.370	50	1.478	1108

\* Stock items

**Multi Pairs, 300 V - 16 AWG (7w) SPOS**

Part Number	# of Pairs	PVC Insulation Thickness (mils)	Nominal Diameter over Core (inches)	Inner Jacket Thickness (mils)	Nominal Diameter over Inner Jacket (inches)	Nominal Diameter Over Sheath (inches)	Outer Jacket Thickness (mils)	Nominal Diameter over Outer Jacket (inches)	Approximate Net Cable Weight (lb/kft)
*066555	1	15	.185	35	.259	.460	50	.566	125
*066571	2	15	.342	50	.446	.618	50	.724	260
*066597	4	15	.383	50	.487	.789	50	.895	355
*066605	8	15	.542	60	.666	.961	50	1.067	555
*066613	12	15	.676	60	.800	1.181	50	1.289	770
665108	16	15	.786	70	.930	1.370	50	1.289	816
665109	20	15	.906	70	1.053	1.370	50	1.478	1150
*066647	24	15	.936	70	1.080	1.573	50	1.478	1180
665110	36	15	1.123	80	1.287	1.734	60	1.860	1850

\*Stock items

**Multi Triads, 300 V - 16 AWG (7w) STOS**

Part Number	# of Pairs	PVC Insulation Thickness (mils)	Nominal Diameter over Core (inches)	Inner Jacket Thickness (mils)	Nominal Diameter over Inner Jacket (inches)	Nominal Diameter over Sheath (inches)	Outer Jacket Thickness (mils)	Nominal Diameter over Outer Jacket (inches)	Approximate Net Cable Weight (lb/kft)
665111	1	15	.199	35	.275	.460	50	.567	140
*083410	4	15	.428	50	.533	.789	50	.894	400
665112	8	15	.605	60	.730	.961	50	1.284	617
665113	12	15	.785	70	.896	1.181	50	1.348	905
665114	16	15	.834	70	.981	1.370	50	1.478	1200
665115	24	15	1.078	70	1.226	1.590	90	1.786	1632

\*Stock items

**Electrical Properties**

300 V Shielded Pairs / Triads with an overall Cable Shield

Conductor Size (AWG)	DC Resistance 20°C Ω/kft	Capacitance			
		Pairs		Triads	
		Conductor -Conductor (pf/ft)	Conductor -Shield (pf/ft)	Conductor -Conductor (pf/ft)	Conductor -Shield (pf/ft)
18	6.64	61	122	64	125
16	4.18	72	143	76	147

**Selling information**

**Options**

The following constructions can be provided on special orders:

- Different conductor size
- Different pair or triad configurations
- Specially colored jackets
- Other constructions and combinations (some manufacturing restrictions apply)
- UL 1309 listing and marking