

UL PLTC Armored Instrumentation I Pairs & Triads (300V)

Armored Instrumentation cables can be used to minimize noise and signal interference by preventing crosstalk between pairs and triads. This cable can also be used to convert analogue or digital signals. Tray Instrumentation cables can be installed in raceways, direct burial applications and in outdoor exposed industrial applications.

Voltage

300V

Product Construction

- Insulation:
 - FR PVCrated: 60°C wet / 105°C dry
 - XLPE rated (optional)
 - VW-1 rated (optional)
- Shielding (foil-free edge):
 - ISOS (standard)
 - OS (optional)
- Armour:
 - Aluminum Interlocked Armor (standard)
 - Steel Interlocked Armor (optional)
 - Served Wire Armor (SWA) (optional)
 - Zetabon (optional)
- Jacket:
 - FR PVC outer black jacket (standard) rated: 90°C to -40°C
 - Thermoset CPE (optional)
 - Thermoplastic CPE (optional)
 - Thermoplastic LSZH (optional)
- Available in:
 - Custom insulation / jacket colors



- Composite constructions PAIRS

Certifications/Compliances

- UL 13, Power Limited Tray Cable (PLTC)
- UL 2250, Instrumentation Tray Cable (ITC)
- UL 83, Thermoplastic Insulated Wires and Cables
- UL 1685 / FT4, Vertical Tray Flame Test rated
- IEEE 1202 / 383 (70,000 BTU / hr), Vertical Flame Test rated
- ICEA T-30-520 (70,000 BTU / hr), Vertical Flame Test rated
- UV sunlight resistant SUN RES (all colours)
- -40°C cold bend rated
- Rated for use in hazardous locations:
 - Class I Zone 2 (Div 2)
 - Class II Zone 22 (Div 2)

Colour Coding

- Pairs - Black, & white, with black printing on white (standard)
- Triads - Black, white & red, with black printing on white (standard)



1. Stranded Bare Copper Conductors (Tinned Available)
2. FR PVC Insulated Conductors

3. Individual Shield & Overall Shielded Pairs / Triads
4. Polypropylene Fillers
5. Polyester Separator Tape
6. Overall Aluminum / Mylar Shield with Tinned Copper Drain Wire
7. FR PVC Inner Protective Jacket
8. Aluminum Interlocked Armor (AIA)
9. FR PVC Outer Protective Jacket

PAIRS

| PART NUMBER | NUMBER OF COMPONENTS | CONDUCTOR SIZE (AWG/MCM) | OD OVER INNER JACKET (IN/MM) | NORMAL DIAMETERS | | CABLE WEIGHT (LBS/1000FT)/ (KG/KM) | MAX. PULLING TENSION (PULLING EYE) (LB/KG) | MIN. BEND RADIUS (PULL) (IN/MM) |
|-----------------|----------------------|--------------------------|------------------------------|---------------------|-----------------------|------------------------------------|--------------------------------------------|---------------------------------|
| | | | | Over Armour (in/mm) | Overall Cable (in/mm) | | | |
| 23621U160100700 | 1 | 16 | 0.267 / 6.78 | 0.507 / 12.88 | 0.619 / 15.72 | 159 / 237 | 41 / 19 | 11.1 / 283 |
| 23622U160200700 | 2 | 16 | 0.426 / 10.81 | 0.666 / 16.91 | 0.778 / 19.75 | 260 / 387 | 82 / 37 | 14 / 356 |
| 23622U160400700 | 4 | 16 | 0.492 / 12.5 | 0.732 / 18.59 | 0.844 / 21.44 | 324 / 482 | 165 / 75 | 15.2 / 386 |
| 23622U160600700 | 6 | 16 | 0.586 / 14.88 | 0.826 / 20.97 | 0.938 / 23.82 | 411 / 611 | 247 / 112 | 16.9 / 429 |
| 23622U160800700 | 8 | 16 | 0.654 / 16.62 | 0.894 / 22.72 | 1.007 / 25.57 | 494 / 735 | 330 / 150 | 18.1 / 460 |
| 23622U161200700 | 12 | 16 | 0.791 / 20.09 | 0.995 / 25.27 | 1.107 / 28.12 | 638 / 950 | 494 / 224 | 19.9 / 506 |
| 23622U161600700 | 16 | 16 | 0.88 / 22.36 | 1.084 / 27.54 | 1.196 / 30.38 | 767 / 1141 | 659 / 299 | 21.5 / 547 |
| 23622U162400700 | 24 | 16 | 1.111 / 28.21 | 1.315 / 33.39 | 1.426 / 36.23 | 1076 / 1601 | 989 / 449 | 25.7 / 652 |
| 23622U163600700 | 36 | 16 | 1.276 / 32.4 | 1.48 / 37.58 | 1.592 / 40.43 | 1431 / 2130 | 1483 / 673 | 28.6 / 728 |
| 23621U180100700 | 1 | 18 | 0.243 / 6.17 | 0.483 / 12.27 | 0.595 / 15.11 | 145 / 215 | 26 / 12 | 10.7 / 272 |

| PART NUMBER | NUMBER OF COMPONENTS | CONDUCTOR SIZE (AWG/MCM) | OD OVER INNER JACKET (IN/MM) | NORMAL DIAMETERS | | CABLE WEIGHT (LBS/1000FT)/ (KG/KM) | MAX. PULLING TENSION (PULLING EYE) (LB/KG) | MIN. BEND RADIUS (PULL) (IN/MM) |
|-----------------|----------------------|--------------------------|------------------------------|---------------------|-----------------------|------------------------------------|--------------------------------------------|---------------------------------|
| | | | | Over Armour (in/mm) | Overall Cable (in/mm) | | | |
| 23622U180200700 | 2 | 18 | 0.366 / 9.3 | 0.606 / 15.39 | 0.718 / 18.24 | 215 / 320 | 52 / 24 | 12.9 / 328 |
| 23622U180400700 | 4 | 18 | 0.444 / 11.27 | 0.684 / 17.37 | 0.796 / 20.21 | 278 / 414 | 104 / 47 | 14.3 / 364 |
| 23622U180600700 | 6 | 18 | 0.525 / 13.35 | 0.765 / 19.44 | 0.877 / 22.29 | 346 / 514 | 156 / 71 | 15.8 / 401 |
| 23622U180800700 | 8 | 18 | 0.568 / 14.42 | 0.808 / 20.52 | 0.92 / 23.37 | 394 / 586 | 208 / 94 | 16.6 / 421 |
| 23622U181200700 | 12 | 18 | 0.707 / 17.95 | 0.947 / 24.04 | 1.059 / 26.89 | 523 / 779 | 312 / 142 | 19.1 / 484 |
| 23622U181800700 | 18 | 18 | 0.827 / 21 | 1.031 / 26.18 | 1.143 / 29.02 | 666 / 991 | 468 / 212 | 20.6 / 522 |
| 23622U182400700 | 24 | 18 | 0.987 / 25.08 | 1.191 / 30.26 | 1.303 / 33.1 | 847 / 1260 | 624 / 283 | 23.5 / 596 |
| 23622U183600700 | 36 | 18 | 1.131 / 28.73 | 1.335 / 33.91 | 1.447 / 36.75 | 1112 / 1654 | 936 / 425 | 26 / 662 |
| 23621U200100700 | 1 | 20 | 0.211 / 5.36 | 0.451 / 11.46 | 0.563 / 14.3 | 129.24 / 192.33 | 16 / 7 | 10.1 / 257 |
| 23622U200200700 | 2 | 20 | 0.313 / 7.96 | 0.553 / 14.06 | 0.665 / 16.9 | 182.079 / 270.96 | 32 / 15 | 12 / 304 |
| 23622U200400700 | 4 | 20 | 0.36 / 9.14 | 0.6 / 15.23 | 0.712 / 18.08 | 221.21 / 329.2 | 64 / 29 | 12.8 / 325 |
| 23622U200600700 | 6 | 20 | 0.445 / 11.3 | 0.685 / 17.4 | 0.797 / 20.24 | 282.419 / 420.29 | 96 / 44 | 14.3 / 364 |

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|-----------------|----------------------|--------------------------|------------------------------|---------------------|-----------------------|------------------------------------|--------------------------------------------|---------------------------------|
| | | | | Over Armour (in/mm) | Overall Cable (in/mm) | | | |
| 23622U200800700 | 8 | 20 | 0.479 / 12.17 | 0.719 / 18.27 | 0.831 / 21.11 | 317.793 / 472.93 | 128 / 58 | 15 / 380 |
| 23622U201200700 | 12 | 20 | 0.574 / 14.58 | 0.814 / 20.68 | 0.926 / 23.53 | 400.794 / 596.45 | 192 / 87 | 16.7 / 423 |
| 23622U201600700 | 16 | 20 | 0.656 / 16.68 | 0.896 / 22.77 | 1.008 / 25.62 | 485.571 / 722.61 | 256 / 116 | 18.2 / 461 |
| 23622U202400700 | 24 | 20 | 0.803 / 20.4 | 1.007 / 25.58 | 1.119 / 28.43 | 632.09 / 940.65 | 384 / 174 | 20.1 / 512 |
| 23622U203600700 | 36 | 20 | 0.938 / 23.83 | 1.142 / 29.01 | 1.254 / 31.86 | 839.789 / 1249.74 | 576 / 261 | 22.6 / 573 |

TRIADS

| PART NUMBER | NUMBER OF TRIADS | CONDUCTOR SIZE (AWG/MCM) | OD OVER INNER JACKET (IN/MM) | NORMAL DIAMETERS | | CABLE WEIGHT (LBS/1000FT)/ (KG/KM) | MAX. PULLING TENSION (PULLING EYE) (LB/KG) | MIN. BEND RADIUS (PULL) (IN/MM) |
|-----------------|------------------|--------------------------|------------------------------|---------------------|-----------------------|------------------------------------|--------------------------------------------|---------------------------------|
| | | | | Over Armour (in/mm) | Overall Cable (in/mm) | | | |
| 23631U160100700 | 1 | 16 | 0.28 / 7.12 | 0.52 / 13.22 | 0.632 / 16.07 | 174 / 259 | 62 / 28 | 11.4 / 289 |
| 23632U160200700 | 2 | 16 | 0.478 / 12.14 | 0.718 / 18.24 | 0.83 / 21.08 | 302 / 449 | 124 / 56 | 14.9 / 379 |
| 23632U160400700 | 4 | 16 | 0.555 / 14.1 | 0.795 / 20.2 | 0.907 / 23.04 | 390 / 580 | 247 / 112 | 16.3 / 415 |
| 23632U160600700 | 6 | 16 | 0.684 / 17.38 | 0.924 / 23.48 | 1.036 / 26.32 | 523 / 778 | 371 / 168 | 18.7 / 474 |

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|-----------------|------------------|--------------------------|------------------------------|---------------------|-----------------------|------------------------------------|--------------------------------------------|---------------------------------|
| | | | | Over Armour (in/mm) | Overall Cable (in/mm) | | | |
| 23632U160800700 | 8 | 16 | 0.741 / 18.82 | 0.981 / 24.92 | 1.093 / 27.76 | 614 / 914 | 494 / 224 | 19.7 / 500 |
| 23632U161200700 | 12 | 16 | 0.919 / 23.36 | 1.124 / 28.54 | 1.235 / 31.38 | 832 / 1238 | 742 / 336 | 22.2 / 565 |
| 23632U161600700 | 16 | 16 | 1.023 / 25.99 | 1.227 / 31.17 | 1.339 / 34.02 | 1012 / 1505 | 989 / 449 | 24.1 / 612 |
| 23632U162400700 | 24 | 16 | 1.268 / 32.2 | 1.472 / 37.38 | 1.584 / 40.22 | 1398 / 2081 | 1483 / 673 | 28.5 / 724 |
| 23631U180100700 | 1 | 18 | 0.255 / 6.47 | 0.495 / 12.57 | 0.607 / 15.41 | 156 / 232 | 39 / 18 | 10.9 / 277 |
| 23632U180200700 | 2 | 18 | 0.433 / 11 | 0.673 / 17.09 | 0.785 / 19.94 | 262 / 390 | 78 / 35 | 14.1 / 359 |
| 23632U180400700 | 4 | 18 | 0.5 / 12.71 | 0.74 / 18.81 | 0.852 / 21.65 | 327 / 486 | 156 / 71 | 15.3 / 390 |
| 23632U180600700 | 6 | 18 | 0.596 / 15.13 | 0.836 / 21.23 | 0.948 / 24.07 | 414 / 616 | 234 / 106 | 17.1 / 433 |
| 23632U180800700 | 8 | 18 | 0.665 / 16.9 | 0.905 / 22.99 | 1.017 / 25.84 | 497 / 740 | 312 / 142 | 18.3 / 465 |
| 23632U181200700 | 12 | 18 | 0.804 / 20.42 | 1.008 / 25.6 | 1.12 / 28.44 | 642 / 956 | 468 / 212 | 20.2 / 512 |
| 23632U181800700 | 18 | 18 | 0.964 / 24.48 | 1.168 / 29.66 | 1.28 / 32.5 | 863 / 1285 | 702 / 318 | 23 / 585 |
| 23632U182400700 | 24 | 18 | 1.128 / 28.65 | 1.332 / 33.83 | 1.444 / 36.67 | 1081 / 1609 | 936 / 425 | 26 / 660 |

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|-----------------|------------------|--------------------------|------------------------------|---------------------|-----------------------|------------------------------------|--------------------------------------------|---------------------------------|
| | | | | Over Armour (in/mm) | Overall Cable (in/mm) | | | |
| 23631U200100700 | 1 | 20 | 0.22 / 5.6 | 0.46 / 11.69 | 0.572 / 14.54 | 136.686 / 203.41 | 24 / 11 | 10.3 / 262 |
| 23632U200200700 | 2 | 20 | 0.35 / 8.88 | 0.59 / 14.98 | 0.702 / 17.83 | 208.316 / 310.01 | 48 / 22 | 12.6 / 321 |
| 23632U200400700 | 4 | 20 | 0.424 / 10.76 | 0.664 / 16.86 | 0.776 / 19.7 | 266.768 / 396.99 | 96 / 44 | 14 / 355 |
| 23632U200600700 | 6 | 20 | 0.5 / 12.69 | 0.74 / 18.79 | 0.852 / 21.64 | 330.028 / 491.14 | 144 / 65 | 15.3 / 389 |
| 23632U200800700 | 8 | 20 | 0.539 / 13.7 | 0.779 / 19.79 | 0.891 / 22.64 | 376.559 / 560.38 | 192 / 87 | 16 / 407 |
| 23632U201200700 | 12 | 20 | 0.67 / 17.01 | 0.91 / 23.1 | 1.022 / 25.95 | 499.489 / 743.32 | 288 / 131 | 18.4 / 467 |
| 23632U201600700 | 16 | 20 | 0.742 / 18.85 | 0.982 / 24.94 | 1.094 / 27.79 | 592.042 / 881.06 | 384 / 174 | 19.7 / 500 |
| 23632U202400700 | 24 | 20 | 0.932 / 23.68 | 1.136 / 28.86 | 1.248 / 31.71 | 806.167 / 1199.71 | 576 / 261 | 22.5 / 571 |

Version: 01 2018/JAN/02