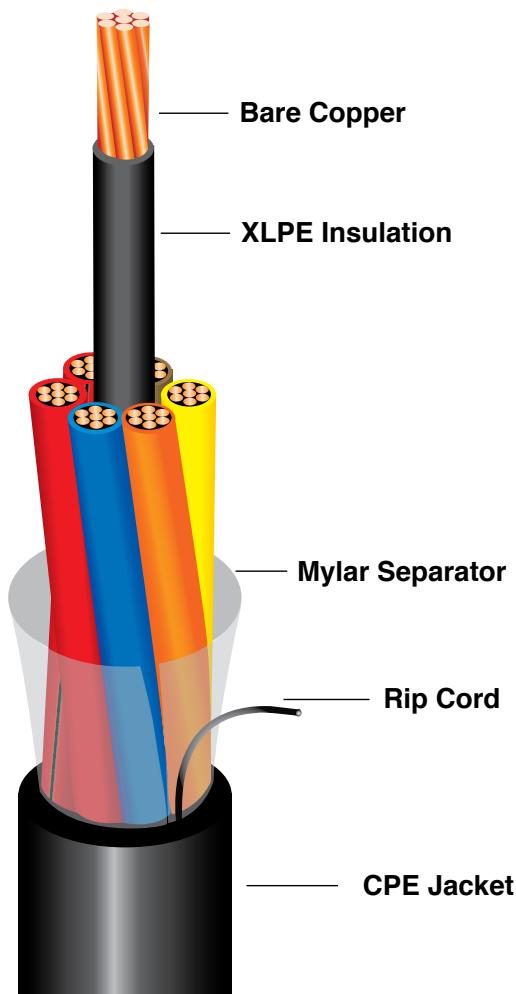


## TYPE TC-ER - CONTROL & POWER TRAY CABLE

Unshielded XLPE Insulation with Overall CPE Jacket  
**18 - 10 AWG • 600 Volts • 90°C Wet/Dry**



### CABLE IDENTIFICATION

#### 18-16 AWG

“ADVANCED DIGITAL CABLE, INC. XX AWG X CDRS TYPE RFH-2 XLP/CPE TC OR TC-ER (UL) 90C WET OR DRY 600V SUN RES DIR BUR FT4/IEEE 1202 E195597 MADE IN USA”

#### 14-10 AWG

ADVANCED DIGITAL CABLE, INC. XX AWG X CDRS TYPE XHHW-2 XLP/CPE TC OR TC-ER (UL) 90C WET OR DRY 600V SUN RES DIR BUR FT4/IEEE 1202 E195597 MADE IN USA



### DESCRIPTION

ADC's Type TC-ER multi-conductor cables have a XLPE insulation with an overall flame retardant, sunlight resistant Chlorinated Polyethylene (CPE) jacket.

### APPLICATIONS

Suitable for use in Class 1 or 2, Division 2 hazardous locations and for installation in trays, wireways, troughs, channels, ducts and conduit. Expressly approved for direct burial, wet or dry locations and outdoors in cable trays where flame retardance and moisture/chemical resistance is critical. Intended for control, power, lighting, telemetering, signals and relay or traffic control.

### CONSTRUCTION

**Conductors:** Soft Drawn Annealed Bare Copper per ASTM B-3 and B-8. Concentric 7 strand. Concentric 19 strand available upon request as well as Tinned Copper.

**Insulation: XLPE** Thickness: Per UL 66 table 4.8 for RFH-2, UL 44 table 12 for XHHW-2.

**Cabling:** Conductors are assembled with fillers in the core as needed.

**Separator:** Mylar

**Overall Jacket:** A black, flame resistant, Chlorinated Polyethylene (CPE) jacket is extruded over the assembly. The surface profile shall approximate that of the interior assembly. A rip cord shall be inserted under the jacket for ease of stripping.

**Color Code:** ICEA Method 1 Tables E-1, E-2 & Method 4.

### INDUSTRY LISTINGS & STANDARDS

UL Listed as TC-ER per UL Standard 1277\*

Rated -40°C to 90°C

OSHA Acceptable

NEC Articles 392

CSA FT4

IEEE 1202 70,000 BTU Flame Test

ASTM - All Applicable Standards

Conductors are VW-1 Rated

\*UL 1277 requires a ground or three conductors to be rated ER



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**18 - 10 AWG • 600 Volts • 90°C Wet/Dry**

### Conductor Data

| Size AWG | Strands | XLPE Insulation Thickness (Mils) | Approximate O.D. (Inches) |
|----------|---------|----------------------------------|---------------------------|
| 18       | 7       | 30                               | .106                      |
| 16       | 7       | 30                               | .118                      |
| 14       | 7       | 30                               | .133                      |
| 12       | 7       | 30                               | .152                      |
| 10       | 7       | 30                               | .176                      |

### Cable Data

| 18 AWG    |        |                       |                 |                          | 16 AWG |                       |                 |                          | 14 AWG |                       |                 |                          | 12 AWG |                       |                 |                          | 10 AWG |                       |                 |                          |
|-----------|--------|-----------------------|-----------------|--------------------------|--------|-----------------------|-----------------|--------------------------|--------|-----------------------|-----------------|--------------------------|--------|-----------------------|-----------------|--------------------------|--------|-----------------------|-----------------|--------------------------|
| # of COBS | Part # | OA Jkt. Thick. (MILS) | Appr. O.D. (IN) | Appr. Weight Lbs./ M Ft. | Part # | OA Jkt. Thick. (MILS) | Appr. O.D. (IN) | Appr. Weight Lbs./ M Ft. | Part # | OA Jkt. Thick. (MILS) | Appr. O.D. (IN) | Appr. Weight Lbs./ M Ft. | Part # | OA Jkt. Thick. (MILS) | Appr. O.D. (IN) | Appr. Weight Lbs./ M Ft. | Part # | OA Jkt. Thick. (MILS) | Appr. O.D. (IN) | Appr. Weight Lbs./ M Ft. |
| 2         | 51802  | 45                    | .306            | 42                       | 51602  | 45                    | .330            | 52                       | 51402  | 45                    | .360            | 66                       | 51202  | 45                    | .398            | 87                       | 51102  | 45                    | .446            | 118                      |
| 3         | 51803  | 45                    | .324            | 53                       | 51603  | 45                    | .350            | 67                       | 51403  | 45                    | .382            | 87                       | 51203  | 45                    | .423            | 116                      | 51103  | 45                    | .475            | 162                      |
| 4         | 51804  | 45                    | .350            | 65                       | 51604  | 45                    | .379            | 82                       | 51404  | 45                    | .415            | 108                      | 51204  | 45                    | .461            | 147                      | 51104  | 60                    | .549            | 222                      |
| 5         | 51805  | 45                    | .366            | 76                       | 51605  | 45                    | .397            | 97                       | 51405  | 45                    | .435            | 128                      | 51205  | 45                    | .484            | 176                      | 51105  | 60                    | .576            | 266                      |
| 6         | 51806  | 45                    | .411            | 85                       | 51606  | 45                    | .447            | 110                      | 51406  | 45                    | .492            | 148                      | 51206  | 60                    | .579            | 204                      | 51106  | 60                    | .651            | 308                      |
| 7         | 51807  | 45                    | .411            | 97                       | 51607  | 45                    | .447            | 127                      | 51407  | 45                    | .492            | 171                      | 51207  | 60                    | .579            | 254                      | 51107  | 60                    | .651            | 357                      |
| 8         | 51808  | 45                    | .438            | 108                      | 51608  | 45                    | .476            | 142                      | 51408  | 60                    | .555            | 208                      | 51208  | 60                    | .617            | 285                      | 51108  | 60                    | .695            | 403                      |
| 9         | 51809  | 45                    | .459            | 120                      | 51609  | 45                    | .500            | 158                      | 51409  | 60                    | .582            | 230                      | 51209  | 60                    | .647            | 316                      | 51109  | 60                    | .730            | 448                      |
| 10        | 51810  | 45                    | .479            | 131                      | 51610  | 60                    | .553            | 188                      | 51410  | 60                    | .607            | 252                      | 51210  | 60                    | .676            | 347                      | 51110  | 60                    | .763            | 493                      |
| 12        | 51812  | 60                    | .545            | 169                      | 51612  | 60                    | .593            | 219                      | 51412  | 60                    | .652            | 294                      | 51212  | 60                    | .727            | 407                      | 51112  | 80                    | .863            | 615                      |
| 15        | 51815  | 60                    | .594            | 202                      | 51615  | 60                    | .648            | 264                      | 51415  | 60                    | .715            | 357                      | 51215  | 60                    | .799            | 498                      | 51115  | 80                    | .945            | 751                      |
| 19        | 51819  | 60                    | .653            | 246                      | 51619  | 60                    | .713            | 323                      | 51419  | 60                    | .788            | 440                      | 51219  | 80                    | .922            | 652                      | 51119  | 80                    | 1.042           | 929                      |
| 25        | 51825  | 60                    | .732            | 310                      | 51625  | 60                    | .801            | 411                      | 51425  | 80                    | .927            | 598                      | 51225  | 80                    | 1.036           | 833                      | 51120  | 80                    | 1.067           | 974                      |