

## ShawFlex Item #: 4C028M180210001

**600V CSA Type TC INSTRUMENTATION TRAY CABLE**  
**2PR 18AWG 7W TINNED COPPER, FR XLPE (RW90) Insulation**  
**FR PVC Jacket , Individual Aluminum/Mylar Tape Shielding , Overall Copper Tape Shield**  
**Suitable for use in 90C WET/105C DRY, SUN RES , -40C, FT4 , Direct Burial**  
**TCBCD rated for Class I Zone 2 (Div 2) & Class II Div 2 Hazardous Locations**

### Specification Reference

CSA C22.2 #230, Tray Cables  
 CSA C22.2 #38, Thermoset Insulated Wires and Cables

### Electrical Characteristics

|   |       |   |                 |
|---|-------|---|-----------------|
| Voltage Class (volts):                  | 600   |   |                 |
| Max. DC Conductor Res. (ohms/Mft @25C): | 7.509 | ( | 24.64 ohms/km ) |
| Capacitance(cond to cond)(pF / ft):     | 21.3  | ( | 69.87 pF / mt ) |
| Capacitance (cond to shield)(pF / ft):  | 39.8  | ( | 131 pF / mt )   |
| Ampacity @ 30C (amps)*:                 | 4     |   |                 |
| Inductive Reactance (Ohms/1000ft):      | 0.043 | ( | 0.14 ohms/Km )  |
| Characteristic Impedance (Ohms):        | 78.8  |   |                 |

### Construction Specifications

|   |  |   |            |
|---|--|---|------------|
| Type of Conductor Stranding:            | 18AWG 7W TINNED COPPER   |   |            |
| ASTM Standard (Conductor):              | ASTM B8 & ASTM B33   |   |            |
| Diameter of Conductor (in):             | 0.046  | ( | 1.17 mm )  |
| Conductor Insulation Type:              | FR XLPE (RW90)   |   |            |
| Insulation Thickness (in):              | 0.030  | ( | 0.76 mm )  |
| Nominal Insulated Wire Diameter (in):   | 0.108  | ( | 2.74 mm )  |
| Pair Identification:                    | Black /White & Red/Black   |   |            |
| Nominal Pair Lay (in):                  | 2.0  | ( | 50.8 mm )  |
| Ind. Component Shield Type:             | 7/8" X 1.35 MIL FOIL FREE AL/MYLAR Tape  |   |            |
| Ind. Component Shield Drain Wire Size:  | 22AWG 7W TINNED COPPER   |   |            |
| Nominal Cable Lay (in):                 | 5.4  | ( | 137.2 mm ) |
| Overall Separator Type:                 | Clear Mylar Tape ( 1mil thick )  |   |            |
| Type of Overall Shielding Tape:         | 1/2" X 5 MIL COPPER TAPE Gap-Style Helical (43% Overlap)   |   |            |
| Jacket Material Type & Colour:          | 90C -40C FR PVC, BLACK   |   |            |
| Average Jacket Thickness (in):          | 0.045  | ( | 1.14 mm )  |
| Nominal Overall Diameter of Cable (in): | 0.494  | ( | 12.5 mm )  |
| Jacket Identification:                  | SHAWFLEX 2PR 18AWG 600V CSA INSTRUMENTATION CABLE<br>CIC TYPE TCBCD 90C WET/105C DRY XLPE ISOS SHIELDED SUN RES<br>DIRECT BURIAL -40C FT4 MADE IN CANADA<br>4C028M180210001 (mo#) (month year)<br>(sequential metre marking every 1 metre) |   |            |

### Physical Characteristics

|   |  |   |              |
|---|--|---|--------------|
| Cable Weight (lbs/Mft):                   | 143  | ( | 214 kg/km )  |
| Max. Pulling Tension (Pulling Eye) (lbs): | 52   | ( | 24 kg )      |
| Max. Pulling Tension (Cable Grip) (lbs):  | 63   | ( | 29 kg )      |
| Min. Bending Radius: Permanent (in):      | 5.9  | ( | 151 mm )     |
| Min. Bending Radius: Pull (in):           | 8.9  | ( | 226 mm )     |
| Max. Conductor Temperature (C):           | 90C WET/105C DRY   |   |              |
| Recommended Min. Install Temp. (C):       | -25C   |   |              |
| Copper Content(lbs/Mft):                  | 65.2   | ( | 97.0 kg/km ) |
| Flame Propagation Test Rating:            | CSA FT-4   |   |              |
| Additional Ratings:                       | TCBCD , -40C Cold Impact, -40C Cold Bend , SUN RES<br>RoHS Compliant |   |              |

\* Ampacity value based on Canadian Electrical Code, Version 2015, Table-57. Values are corrected according to number of Conductors.

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