# Power & Control/Signal Type ACIC CSA

Power & Control/signal, Copper Conductors, 12 & 10 AWG - Power, 16 AWG - Jacketed Control/signal, 600 Volts / -25°c Min, 90°C Max, T90 PVC / Nylon Construction

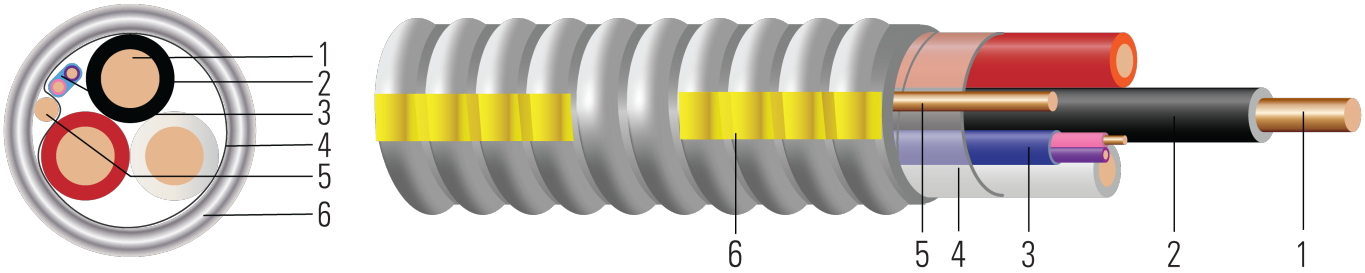


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type T90 Nylon
3. **Signal:** 16 AWG Copper Insulated Singles Pink, Purple. Overall light blue jacket over the signal cables
4. **Binder:** Polypropylene tape
5. **Bond Wire:** Solid copper
6. **Armor:** Aluminum Interlocked Armor

## APPLICATIONS AND FEATURES:

Southwire's new ACIC-PCS DUO™ Cable is ideal for use with LED or fluorescent dimming controls in multi-residential and SMART buildings. ACIC-PCS DUO™ Cable combines power conductors along with Control/Signal applications all under one armor, saving you time and money. ACIC-PCS DUO™ cables are also designed for exposed and concealed wiring such as ventilated cable trays and other dry locations, where the maximum conductor temperature will not exceed 90°C. Minimum recommended installation temperature: -10°C (with suitable handling procedures).

- Reduces installation costs when compared to pulling separate power and control/signal/data cables
- All cables under one armor decreases the likelihood of damage - eliminating costly callbacks for troubleshooting and repair
- Yellow Stripe Identification - for easy identification when installed with other cables
- CSA 90°C Max. Insulation Temperature rating
- CSA -25°C Cold Temperature Rating
- CSA -10°C Minimum recommended cold Installation Temperature
- Class - C572101 - Control Cables
- CSA Certification File: LL90458 - Certified as ACIC for Control and Instrumentation

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- CSA C22.2 No. 239 Control and instrumentation cables

## SAMPLE PRINT LEGEND:

SOUTHWIRE {CSA} LL90458 X/C AWG XX CU PVC/N AND AWG XX CU X/C PVC/N CONTROL -25°C FT1, FT4 SUN RES 90°C DRY 75°C WET 600V ACIC --- SOUTHWIRE ACIC-PCS DUO{TM} ---


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## Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Cond. Number | Strand | Insul. Thickness | Insulation Color | Ground | Approx. OD | Approx. Weight | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C† |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | | No. | mil | | No. x AWG | inch | lb/ 1000ft | inch | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp |
| 649880◊ | 14 | 2 | SOLID | 35 | BK,WE | 1x14.0 | 0.603 | 147 | 2.4 | 2.631 | 3.265 | 0.058 | 25 |
| 643483◊ | 12 | 3 | SOLID | 35 | BK,RD,WE | 1x14.0 | 0.614 | 193 | 2.5 | 1.662 | 2.063 | 0.054 | 30 |
| 643481◊ | 12 | 2 | SOLID | 35 | BK,WE | 1x14.0 | 0.622 | 166 | 2.5 | 1.662 | 2.063 | 0.054 | 30 |
| 643479◊ | 10 | 2 | SOLID | 35 | BK,WE | 1x12.0 | 0.602 | 198 | 2.4 | 1.04 | 1.291 | 0.05 | 40 |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Ampacities based upon 2021 Canadian Electrical Code, Part I (CEC) Table 2 and do not take into account the overcurrent protection limitations in CEC Rule 14-104(2) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding). Also, see CEC Rules 4-004 and 4-006 for additional requirements."
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 2 – Weights and Measurements (Metric)

| Stock Number | Cond. Size | Cond. Number | Strand | Insul. Thickness | Insulation Color | Ground | Approx. OD | Approx. Weight | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | | No. | mm | | No. x AWG | mm | kg/km | mm | Ω/km | Ω/km | Ω/km | Amp |
| 649880◊ | 14 | 2 | SOLID | 0.89 | BK,WE | 1x14.0 | 15.32 | 219 | 60.96 | 8.63 | 10.71 | 0.1903 | 25 |
| 643483◊ | 12 | 3 | SOLID | 0.89 | BK,RD,WE | 1x14.0 | 15.60 | 287 | 63.50 | 5.45 | 6.77 | 0.1772 | 30 |
| 643481◊ | 12 | 2 | SOLID | 0.89 | BK,WE | 1x14.0 | 15.80 | 247 | 63.50 | 5.45 | 6.77 | 0.1772 | 30 |
| 643479◊ | 10 | 2 | SOLID | 0.89 | BK,WE | 1x12.0 | 15.29 | 295 | 60.96 | 3.41 | 4.24 | 0.1640 | 40 |

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◊ Cable marked with this symbol is a standard stock item
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