Campbell SCIENTIFIC

CPIPCBL2

CPI Non-Armored Communications and Power Cable with UTSX Eight-Pin Socket Connector

Overview

The CPIPCBL2 carries both CPI communications and power between a CPI-enabled sensor and a Campbell Scientific data logger or HUB-CPI module. Campbell Scientific's CPI bus enables high-speed communications over long cable runs while maintaining precise time synchronization across all connected sensors, which is critical for eddy-covariance applications where measurement timing is essential. The sensor end terminates in an eight-pin UTSX socket connector. The opposite end offers three configurations to suit different installation requirements:

- **-RC (RJ45):** An RJ45 connector for the CPI data signals, paired with a separate two-conductor 14 AWG pigtail for power; connects directly to a data logger's CPI port or HUB-CPI module
- **-CU (UTSX Plug):** An eight-pin UTSX plug connector for daisy-chaining a CSAT3C 3-D Sonic Anemometer on a TGA300 Trace Gas Analyzer or connecting to enclosures with a CPI breakout board
- **-PF (Pigtail with Ferrules):** Individual wires with ferruled terminations for RS-485 signals and 14 AWG power leads suited for RS-485 connections to third-party data acquisition systems

The CPIPCBL2 is available in standard lengths of 5 m (17 ft), 20 m (66 ft), and 50 m (164 ft). For custom-length availability, contact Campbell Scientific.

Benefits and Features

- IP68-rated UTSX socket connector providing dustproof and waterproof protection in both mated and unmated states
- Single cable architecture combining communications and power to simplify connection and minimize installation errors
- UTSX eight-pin socket connector with direct mating to all CPI-enabled sensors
- Supports high-speed, long-distance CPI communications with precise sensor/data logger synchronization
- 14 AWG power conductors for efficient power delivery over longer cable runs

Detailed Description

For tables listing the cable wire colors and wiring information for the three termination options, see the images on the

product web page.

Specifications

Cabling	Two-conductor 14 AWG, two-pair 24 AWG, and one-conductor 24 AWG cabled together with fillers for roundness
Jacket Material	0.762 cm (0.3 in.) wall black polyurethane 82 Shore A jacket
Temperature Range	-40° to +85°C
Sensor Connector	UTSX eight-pin socket
Power Conductors	14 AWG tinned copper (two-conductor), polypropylene insulation, red, black
Data Conductors	24 AWG tinned copper (two-twisted pair), polypropylene insulation, brown paired with brown/white stripe, blue paired with blue/white stripe
Ground Conductor	14 AWG tinned copper (one-conductor), polypropylene insulation, green
Drain Wire	24 AWG tinned copper
Shield	Aluminum Mylar wrap – foil in
Isolation	Non-woven polyester tape wrap
Termination Options	❱ -PF: ferrules on RS-485 and power wires ❱ -CU: UTSX eight-pin plug ❱ -RC: RJ45 with 14 AWG power pigtail
Protocol Support	❱ Campbell Scientific CPI bus (CPI) ❱ RS-485 (via -PF option)
Certifications	RoHS-compliant material
Cable Nominal Outer Diameter	8.0772 mm ± 0.254 mm (0.3180 in. ± 0.010 in.)
Standard Lengths	5 m (17 ft), 20 m (66 ft), 50 m (164 ft)

For comprehensive details, visit: www.campbellsci.cc/cpipcbl2