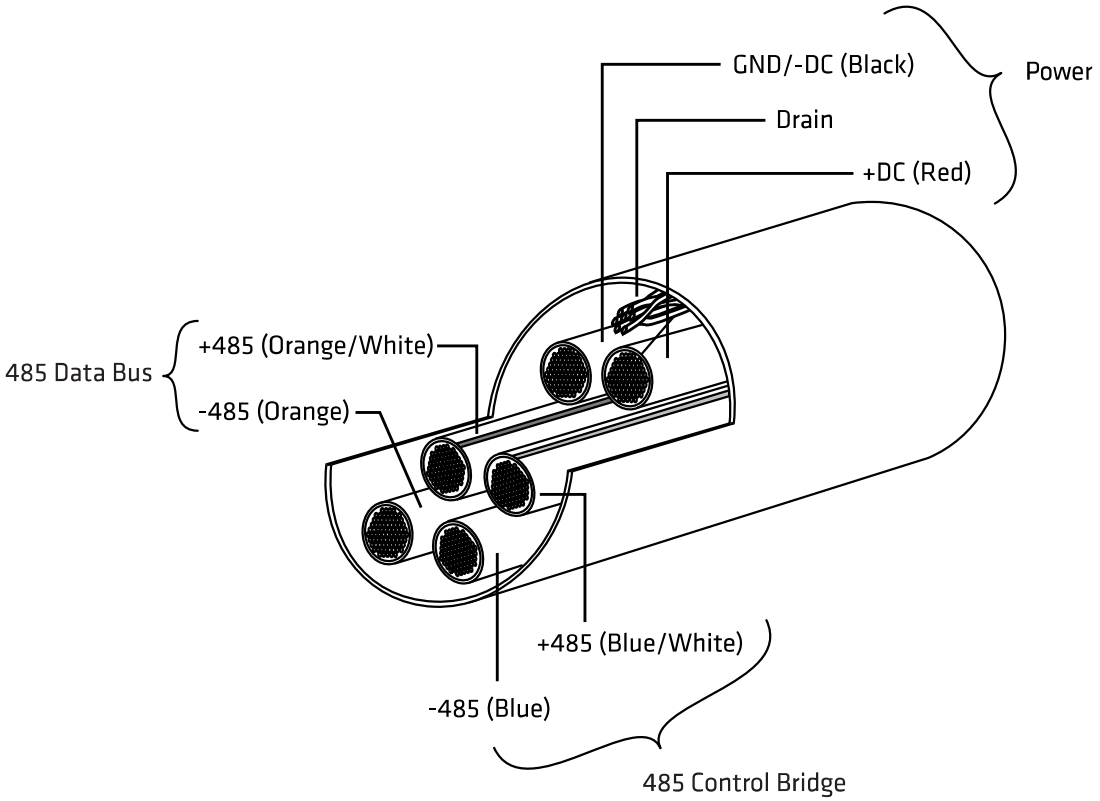
SmartSensor 6-conductor Cable

The SmartSensor™ 6-conductor cable is used with the SmartSensor Matrix and SmartSensor Advance to provide power and communication connectivity to the sensors. Heavy-duty and weather-resistant, this custom cable is ideal for cable runs from the sensor to the cabinet.

Features

- 6-conductor cable that attaches to an 8-pin connector
- Provides power and RS-485 communications between sensor and cabinet
- Connector is keyed to ensure proper connection
- Color-coded for quick and easy wiring to terminal blocks, Click modules
- RS-485 and power conductors are twisted pairs
- Cable assembly is shielded with aluminum/mylar shield and a tinned copper drain wire
- RoHS compliant
- Cable end connector backshell is environmentally sealed, offering excellent immersion capability
- Connector backshell supports cable slack under extreme weather conditions



Technical Specifications

Cable

- RS-485 conductors: 2 twisted pairs
- RS-485 conductor nominal capacitance, conductor to conductor: less than 40 pF/ft at 1 kHz
- RS-485 conductor nominal conductor DC resistance: less than 16.7 ohms/1000 ft. (304.8 m) at 20°C
- Power conductors: twisted pair with nominal conductor DC resistance of less than 11 ohms/1000 ft. (304.8 m) at 20°C
- Cable assembly shielded with aluminum/polyester shield and tinned copper drain wire
- Jacket: 0.053-in. (1.3-mm) gray PVC
- Cable diameter: 0.41 in. (1.04 cm)
- Wire gauges:
  - Power wires: 20 AWG
  - Comms wires: 22 AWG
- RoHS compliant
- Approvals: UL/cUL Type CMG
- Ambient operating temperature: up to 221°F (105°C) dry / 167°F (75°C) wet
- Flammability rating: FT4
- UV resistant: Yes (per UL 720 Hour Sunlight Resistance Test)

Connector

- Meets MIL-C-26482 specification
- Backshell is environmentally sealed
- Backshell offers excellent immersion capability
- All conductors that interface with the connector are encased in a single jacket
- Backshell has a strain relief with enough strength to support the cable slack under extreme weather conditions

Ordering Information

SmartSensor 6-conductor cable
SS-704-xxx – xxx indicates cable length

SmartSensor 6-conductor cable (bulk spool)
SS-705 – minimum 1000 ft. (304.8 m)

8-pin Female Connector
SS-709

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SmartSensor 6-conductor Cable Bid Specification

1.0 General. This item shall govern the purchase of a traffic sensor–to–traffic cabinet cable equivalent to the Wavetronix Smart-Sensor™ 6-conductor cable.

2.0 Cable. The cable shall be the Orion Wire Combo-2204-2002-PVCGY or an equivalent cable that conforms to the following specifications:

- The RS-485 conductors shall be 2 twisted pairs.
- The RS-485 conductors shall have nominal capacitance conductor to conductor of less than 40 pF/ft at 1 kHz.
- The RS-485 conductors shall have nominal conductor DC resistance of less than 16.7 ohms/1000 ft. at 20°C.
- The power conductors shall be a twisted pair.
- The power conductors shall have nominal conductor DC resistance of less than 11 ohms/1000 ft. at 20°C.
- The entire cable shall be shielded with an aluminum/polyester shield with a drain wire.
- The cable jacket shall be made of gray PVC that is 0.053 in. (1.3 mm) thick.
- The cable shall have a diameter of 0.41 in. (1.04 cm).
- The power wires in the cable shall be 20 AWG; the communications wires shall be 22 AWG.
- The cable shall be RoHS compliant.
- The cable shall have a UL/cUL type CMG safety approval.
- The cable shall be cable of operating at temperatures up to 221°F (105°C) while dry and 167°F (75°C) while wet.
- The cable shall have an FT4 flammability rating.
- The cable shall be UV resistant, as per the UL 720 Hour Sunlight Resistance Test.

3.0 Connector. The cable end connector shall meet the MIL-C-26482 specification and shall be designed to interface with the appropriate MIL-C-26482 connector. The connector backshell shall be an environmentally sealed shell that offers excellent immersion capability. All conductors that interface with the connector shall be encased in a single jacket, and the outer diameter of this jacket shall be within the backshell's cable O.D. range to ensure proper sealing. The backshell shall have a strain relief with enough strength to support the cable slack under extreme weather conditions. Recommended connectors are Cannon's KPT series, and recommended backshells are Glenair Series 37 cable sealing backshells.