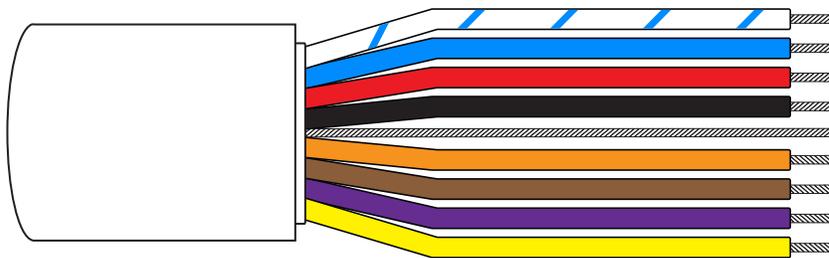


## Power, RS-485, and RS-232 sensor cable

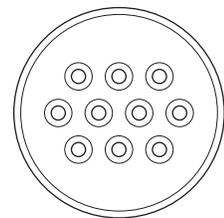
The SmartSensor 8-conductor cable can be used with the SmartSensor V, HD, and Advance retrofit to provide power and communication connectivity to the sensors. Heavy-duty and weather-resistant, this custom cable is ideal for cable runs from the sensor to the cabinet.



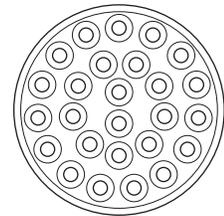
- Two connectors available: 10-pin connector for connecting to SmartSensor V and HD; 26-pin connector for connecting to SmartSensor V retrofit, HD legacy, HD retrofit and Advance retrofit
- Provides power, RS-232, and RS-485 between sensor and cabinet
- Connector is keyed to ensure proper connection
- Color-coded for quick and easy wiring to terminal blocks, Click modules or other devices
- RS-485 and power conductors are twisted pairs; RS-232 conductors are lead wires
- 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



8-conductor cable



10-pin connector



26-pin connector

## Technical specifications

### Cable

- RS-232 conductors: four lead wires
- RS-485 conductors: twisted pair
- RS-485 conductor nominal capacitance, conductor to conductor: less than 40 pF/ft at 1 kHz
- RS-232 and 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 11.5 ohms/1000 ft. (304.8 m) at 20°C
- One tinned copper drain wire
- Cable assembly shielded with aluminum/polyester shield
- 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)
- 600 Volt AWM style 2587

### Connector

- Meets MIL-C-26482 specification
- 10 or 26 pins, depending on model
- 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 8-conductor cable, 10-pin connector (set length, connectorized)

**SS-706-020 (20-ft. cable)**

**SS-706-040 (40-ft. cable)**

**SS-706-060 (60-ft. cable)**

**SS-706-080 (80-ft. cable)**

**SS-706-100 (100-ft. cable)**

SmartSensor 8-conductor cable, 26-pin connector (set length, connectorized)

**SS-708-020 (20-ft. cable)**

**SS-708-040 (40-ft. cable)**

**SS-708-060 (60-ft. cable)**

**SS-708-080 (80-ft. cable)**

**SS-708-100 (100-ft. cable)**

SmartSensor 8-conductor cable (bulk spool, non-connectorized)

**SS-707 – custom cable length (sold in 100-ft. increments)**

**SS-707-001 (1000-ft./304.8-m spool)**

**SS-707-002 (5000-ft./1524-m spool)**

### Contact us

801.734.7200

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[www.wavetronix.com](http://www.wavetronix.com)

## Bid specifications

**1.0 General.** This item shall govern the purchase of a traffic sensor-to-traffic cabinet cable equivalent to the Wavetronix SmartSensor 8-conductor cable.

**2.0 Cable.** The cable shall be the Orion Wire Combo-2206-2002-PVCGY or an equivalent cable that conforms to the following specifications:

- The RS-232 conductors shall be four lead wires.
- The RS-485 conductors shall be a twisted pair.
- The RS-485 conductors shall have nominal capacitance conductor to conductor of less than 40 pF/ft at 1 kHz.
- The RS-232 and RS-485 conductors shall have nominal conductor DC resistance of less than 16.7 ohms/1000 ft. (304.8 m) at 20°C.
- The power conductors shall be a twisted pair with nominal conductor DC resistance of less than 11 ohms/1000 ft. (304.8 m) 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.
- The cable shall support 600 Volts per AWM style 2587.

**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 shall have either 10 or 26 pins and shall be compatible with the sensor into which it is to be terminated. 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.