



Global Traffic  
Technologies

# Canoga™ Traffic Sensing System

## Canoga™ 30003 Home-run Cable

A Matched Component of the Canoga™ Traffic Sensing System

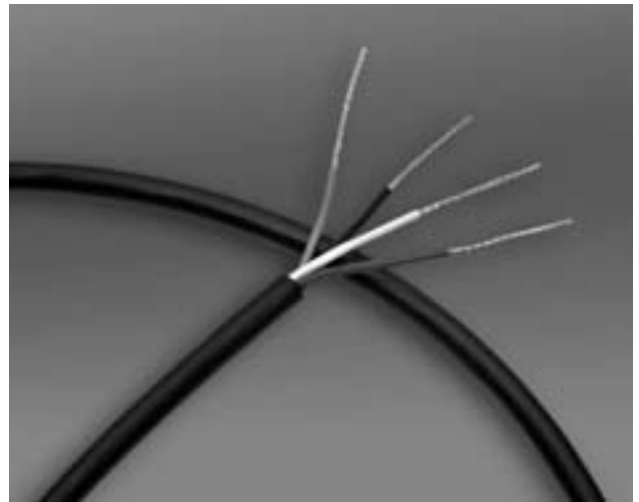
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### Description

Canoga™ 30003 Home-run Cable is a small-diameter, shielded, four-conductor, controlled capacitance cable designed for interconnecting Canoga™ 702 Non-invasive Microloop™ Sensors, Canoga™ 701 Microloop™ Sensors or inductive loops to Canoga™ Traffic Monitoring Cards or Canoga™ C900 Series Vehicle Detectors. The cable has four #18 AWG colored-coded conductors. The conductors are spirally laid and enclosed in an aluminized polyester shield, which is located inside a polyethylene jacket. The black, high-density polyethylene jacket provides excellent chemical resistance and mechanical protection, and the interior of the cable is filled with a water-blocking material. Low cable inductance and stable inter-lead capacitance makes long runs possible with little or no sensitivity loss.

### Features and Benefits

- **Small size:** Four-conductor cable of less than 1/4-inch (0.6 cm) diameter. Reduced space requirements for conduit or sawslot installations optimizes installation cost economies.
- **Chemical resistant and waterproof:** UV stable, black, high-density polyethylene jacket rated to exceed 600 volts. Permits direct burial—ideal for advanced detection applications—or conduit installations.
- **Shielded:** Aluminized polyester shield protects against electromagnetic interference.
- **Waterblocked:** Cable interior is filled with a water-blocking material that prevents moisture penetration. Permits direct burial.
- **Stable inter-lead capacitance:** Maximizes performance with vehicle detectors.
- **Low cable inductance:** Long home-run distance—up to 2,500 feet (762 m) from Canoga Microloop sensors to Canoga C900 series detectors. Reduces need for additional cabinets.
- **Four conductors:** Permits connection of two Canoga Microloop sensors per Canoga 30003, reducing number of cables.



Canoga™ 30003 Home-run Cable is less than 1/4-inch (0.6 cm) in diameter and can be used in conduit, direct burial or sawslot installations.

## Operating Parameters

- **Dielectric:** Withstands voltage strength exceeding 600V per UL 83 section 36.
- **Inductance:** Approximately 23 mH/100 feet (23 mH/30.5 m) for diagonal pairs.
- **Capacitance:**
  - Adjacent pairs:** 30 pf/foot (30 pf/30.5 cm) with all others disconnected.
  - Diagonal pairs:** 27 pf/foot (27 pf/30.5 cm) with all others disconnected.
- **High-Density Polyethylene Jacket:** Nominal thickness 0.032 inches (0.81 mm).
- **Four Conductors:** AWG #18 stranded copper with color-coded, polypropylene insulation, twisted six turns/foot (six turns/30.5 cm). Color rotation is black, red, white and green.
- **Waterblocked:** Amorphous interior moisture-penetration barrier prevents hosing, siphoning or capillary absorption of water along cable interstices.
- **Stable Electrical Characteristics:** Suitable for prolonged exposure to temperature in extreme environmental range of -65° F to +176° F (-60° C to +80° C).

## Physical

- **Outside Diameter:** Less than 0.25 inches (6.4 mm).
- **Shipping Weight:** Approximately 40 lbs./1,000 feet (19.9 kg/1205 m).

## Packaging

- Available in 1,000-foot (305 m) and 2,500-foot (762 m) spools.

## Recommended Wiring

Electrical connections should be soldered, insulated and waterproofed. Connection to the shield is generally not necessary. The 3M™ Scotchcast™ 3832 Buried Service Wire Splice Installation Kit is recommended for reliable interconnection to Canoga™ Microloop™ Sensors.

## Related Products or Accessories

The Canoga™ 30003 Home-run Cable is a matched component of the Canoga™ Traffic Sensing System that consists of the following components:

- Canoga™ 702 Non-invasive Microloop™ Sensors and installation components
- Canoga™ 701 Microloop™ Sensors
- Canoga™ 30003 Home-run Cable
- Canoga™ Traffic Monitoring Cards
- Canoga™ TMC Configuration Software
- Canoga™ C900 Series Vehicle Detectors
- Canoga™ C900 Configuration Software

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