



SL FOEXT Extension Cable Application Guide

Quarterhill road-traffic products, accessories



Purpose

The SL FOEXT extension cable joins two fiber-optic sensor cables through a protected fiber-optic coupling, extending the run between a sensor and its interface over longer distances.

Included Components

- Two heat-shrink tubes, 170 mm long, shrinking to 2.5 mm diameter, coated on the inside with hot-melt glue
- Metal fiber-optic adapters

Safety and Handling

- Keep every connection in a dry location. The heat-shrink tubes do not protect against standing water.
- Do not overbend the fiber cable or apply strong pulling force.
- Connect only one extension cable to one sensor.
- Tighten the connector screws finger-tight; do not use a tool.
- Protect the couplings against dirt, moisture, and water, and against vibration and shock.

Tools and Materials

- Hot-air tool (heat source)
- Trigger Tester or an alternative light source
- Optional: Termination Kit, for connector replacement

Procedure

- 1. Test the sensor.** Before connecting, confirm sensor integrity with a Quarterhill analyzer, the Trigger Tester, or an alternative light source, checking that light transmits through the connectors.

- 2. Prepare the cable ends.** Separate the two cable ends gradually to make room for the heat-shrink tubes.
- 3. Place the heat-shrink tubes.** Slide one heat-shrink tube onto each cable end, and have the metal fiber-optic adapters ready.
- 4. Mate the connectors.** Remove the blue protection caps and join the cables with the metal adapters, tightening the screws finger-tight.
- 5. Position the tube over the coupling.** Slide a heat-shrink tube so it is centered over the completed coupling.
- 6. Shrink the tube.** Apply hot air evenly from all sides along the full length of the tube until it has shrunk completely. Do not overheat.
- 7. Cool.** Let the coupling cool completely before use.
- 8. Verify.** Repeat the test from step 1 to confirm proper operation.

Technical Notes

Specification	Value
Heat-Shrink Tube	170 mm long, shrinks to 2.5 mm diameter, internally glue-lined
Coupling	Metal fiber-optic adapter with finger-tight assembly
Environment	Dry locations only; protect from water, vibration, and shock
Extension Cable	One extension cable per sensor