

Baseline Flow biCoders™

The Baseline Flow biCoders™ are two-wire decoders that are designed to work with most flow sensors and flow meters that produce a pulsed output. The Flow biCoder transmits the pulse data between the flow device and a BaseStation controller.

Features

- The Flow biCoder has true two-way communication using a 9-byte packet for commands and replies.
- The Flow biCoder is capable of self-identifying to the two-wire controller and will report pre-configured unique serial numbers and zone addresses.
- The Flow biCoder serial number is printed on the side of the decoder.
- Each Flow biCoder has 24 inches of 16-gauge PVC jacketed solid core wire to connect to the two-wire.
- Each Flow biCoder has 24 inches of 18-gauge PVC jacketed stranded core wire to connect to a pulse output flow meter.
- The Flow biCoder can be connected to flow devices with either 2 or 3 wires.
- The Flow biCoder has collision detection on the two-wire and is able to resend messages if a collision is detected.
- The Flow biCoder reads a minimum of a 5-millisecond low pulse at 200 hertz and a maximum of 200 pulses per second.
- The Flow biCoder is able to search for a flow meter.
- The Flow biCoder is able to run a pulse-output flow meter up to 1000 feet away.

Electrical Specifications

- The Flow biCoder has a built-in amperage meter to accurately measure and diagnose flow meter electrical problems such as “no current,” “station short,” or “over current.”
- The BL-5308 Flow biCoder can supply up to 17mA of current to the blue wire. The voltage on the blue wire is approximately 14.5v.
- The BL-5309 Flow biCoder can supply up to 50mA of current to the purple wire. The voltage on the purple wire is approximately 12v.
- The flow meter output wires of the BL-5309 Flow biCoder are powered by a DC-DC converter that has up to 1000 volts of isolation. This isolation provides the following benefits:
 - Prevents high voltages from affecting the system that is receiving the signal
 - Prevents electrical paths from crossing when multiple flow meter devices are connected

Connector Requirements

- Use two-wire connectors that are DBR-6, DBG, or equivalent direct bury splice, made for full submersion and effectively seal moisture out.
- Use twist connectors with a steel spring, metal shell, and flame retardant PVC insulator.

Connector Requirements, continued

- Use a connector with an outer tube made of polypropylene.
- Use silicone electrical insulating gel inside the connector.
- Use a connector with a minimum voltage rating of 600 volts.
- Use a connector that can operate in temperatures ranging from -40°F to 221°F (-40°C to 105°C).
- Use a connector that can fit five 18-gauge, four 12-gauge, or three 10-gauge wires inside the connector.
- Make all connections per manufacturer's specifications.
- Verify that no loose, unshielded wiring can touch the soil, water, or another copper conductor causing a leakage of current to the ground or a short circuit across wires.
- Make all splices inside a valve box.
- Mount all connections vertically to eliminate standing water inside the DBR.

Flow Features in the Controller Software

- Learn the flow for each zone
- Use flow data to maximize the number of zones the controller can turn on at once to help shorten your water windows
- In the event of unexpected high or low flow, automatically determine which zone is at fault and alert you without interrupting the rest of the watering cycle
- Protect your site from mainline breaks with configurable high and low flow shutdown settings

How to Specify

- BL-5308 Flow biCoder
- BL-5309 Flow biCoder designed to work with the following:
 - Electromagnetic flow meters with low power requirements
 - Flow meter connected to a pump station
 - Systems with multiple flow meters on the same circuit