Baseline's BL-5406 4-20mA biCoder™

The BL-5406 4-20mA biCoder allows a BaseStation 3200™ irrigation controller to communicate with a standard 4-20 mA pressure sensor device.

The BL-5406 4-20mA biCoders work with Baseline's biLine™ two-wire technology to create the only true bi-directional two-wire devices in the industry. Baseline's biCoders not only receive commands from the controller, they also send real-time information back to the controller. Plus, Baseline's biCoders have built-in diagnostic LED lights that tell you at a glance whether the device is working.

BL-5406 biCoder Specifications

- The BL-5406 biCoders are fully sealed, submersion-proof, and approved for direct bury.

- Shock resistant

- Freeze/heat resistant -4°F to 140°F (-20°C to 60°C)

- Manufactured with 24 inches of 16-gauge PVC jacketed solid core wire to connect to the two-wire.

- The BL-5406 biCoder is wired to the compatible sensor device at the factory.

- Includes a built-in amperage meter that accurately measures and diagnoses valve solenoid electrical problems such as "no current," "station short," or "over current."

- Multi-station biCoders have color coded wires for each station.

- The BL-5406 biCoder has built-in LEDs that blink during communications on the two-wire side and remain lit when power is supplied to the biCoder.

- The BL-5406 biCoder can interface with and read any 4 to 20mA sensing device.

- All biCoders carry Baseline's standard warranty of 5 years from date of install.

- Built-in surge protection.

- Compatible with Baseline's BaseStation 3200 irrigation controller running firmware version 16 or greater.

biLine Features

• The biLine II protocol for two-wire operates below 30 VAC RMS.

• True two-way communication that uses a 9-byte packet for commands and replies.

• Search for and identify all devices connected to the two-wire and list them in the controller.

• Address devices by serial number by assigning each zone address a device serial number.

• Re-address any device from the controller by re-assigning the devices serial number to a new zone address.

• Detect and repair from the controller all address conflicts for devices that are connected to the two-wire.

• Automatically detects communication collision on the two-wire and resends any message experiencing an error.

Compatible Pressure Sensor

Baseline's Pressure Sensor biCoder Kit supplies the biCoder and a Dwyer® Series 628 pressure transmitter with the following specifications.

Service: Compatible gases and liquids

Wetted Materials: Type 316 stainless steel

Full Scale Accuracy: 1.0%

Temperature Limit: 0 to 200°F (-18 to 93°C)

Note: Baseline's tests have shown that freezing conditions can damage a pressure sensor. If a small amount of water remains inside the pressure sensor after an irrigation system is winterized, that water can freeze and permanently deform the diaphragm. In regions where freezing temperatures are expected, Baseline recommends that you remove the pressure sensor and store it indoors until the threat of freezing has passed.

Compensation Temperature Range: 0 to 175°F (-18 to 79°C)

Thermal Effect: ±0.04% FS/°F (includes zero and span)

Pressure Limits: 0 to 150 psi

Power Requirements: 10 to 30 VDC for 4 to 20 mA outputs

Output Signal: 4 to 20 mA

Response Time: 300 ms

Loop Resistance: 0 to 1000 Ohms max. R max = 50 (Vps-10) Ohms (4 to 20 mA output)

Stability: 1.0% FS/year (Typ.)

Current Consumption: 38 mA maximum (for 4 to 20 mA output)

Electrical Connection: The power for the two-wire ready pressure sensor is supplied from the two-wire path by way of the electrical connection to the pressure sensor biCoder.

Process Connection: ¼" male NPT

Enclosure Rating: NEMA 4X (IP66)

Note: The enclosure provides protection in harsh environments. While it can be exposed to some moisture, it is not suitable for complete or ongoing submersion.

Mounting Orientation: Can be mounted in any position

Weight: 10 oz (283 g)

Agency Approvals: CE, NSF, UL

How to Specify

BL-5406 - Direct burial pressure biCoder

BL-5406-KIT - Includes the Direct burial pressure biCoder and a compatible pressure sensor