



# FlowStation

## Configuration & Specification Guide

## The FlowStation

The Baseline FlowStation allows up to 30 BaseStation 3200 Irrigation controllers to share water resources.

Whether you have multiple controllers drawing from one large mainline across a property, or you are combining controllers across multiple mainlines, the FlowStation offers the features and flexibility to tackle the job. With the FlowStation, controllers can share up to 20 separate points of connection and each point of connection can be assigned to one of 20 shared mainlines. The FlowStation will intelligently manage each mainline and allocate water resources among BaseStation 3200 controllers in the shared flow group.

Users can still take advantage of the advanced features of the BaseStation 3200 like program priorities, start, stop and pause conditions, and even point of connection empty conditions .

With the FlowStation, you don't lose the ability to monitor each point of connection for high and unexpected flow events--the BaseStation 3200 will continue to monitor each point of connection that is connected to it for flow-related faults and report a fault to the FlowStation so appropriate action can be taken.

The FlowStation has a built-in Ethernet port and it is also compatible with Wi-Fi and Ethernet radios. If an existing local network is not available, Ethernet radios can be used to create a stand-alone network for just the BaseStation 3200 controllers and the FlowStation. The FlowStation does not require a connection to the Internet, so stand-alone sites are easy to implement.

Part Number: BL-FLOWSTN

Designate an enclosure option by adding "-X" or "-P" to the FlowStation part number.

Example:

BL-FLOWSTN-X

## The Shared Flow biCoder

Every BaseStation 3200 can be easily upgraded to share water resources with the addition of a Shared Flow biCoder. The Shared Flow biCoder connects directly to the two-wire path and enables the shared flow features in the BaseStation 3200.

Part Number: BL-3200UPG-SF



## How it Works

A FlowStation and up to 30 BaseStation 3200 controllers make up a shared flow group. An individual point of connection (master valve or pump and a flow device) will be physically wired to one of the BaseStation 3200 controllers. That point of connection will then be assigned to the FlowStation for management as a "shared" resource. After a point of connection is designated as a shared resource, the BaseStation 3200 can no longer use the POC directly.

The BaseStation 3200 will continue to monitor the point of connection for flow-related faults and immediately report any faults to the FlowStation. When a point of connection becomes unavailable because of a flow fault, or some other reason, the FlowStation will discontinue use of that point of connection until the problem is corrected and the error is cleared.

Up to 20 shared points of connection can be assigned to one of 20 shared mainlines in the FlowStation. The FlowStation will monitor the mainline, aggregate, and then allocate the shared resource among the programs on the BaseStation 3200 controllers in the shared flow group.

Any of the 99 programs available on a BaseStation 3200 within a shared flow group can be designated as a "shared" program and assigned to the FlowStation. A shared program is configured in the controller with normal program settings, including zones, start times, start days, water windows, and other start conditions, etc. When a start condition is met for any one of the BaseStation 3200's shared programs, the controller will request water from the FlowStation. If the FlowStation determines there is adequate water available, it will allocate the water to the requesting controller's program. If water is not available, the program will wait until the FlowStation allocates water before it begins.

## How Communication Works

The FlowStation and the BaseStation 3200 communicate over an IP based network. The FlowStation requires a static IP address on the network, and each BaseStation 3200 will need to have an IP address on the network. The BaseStation 3200 can be assigned a static IP address or it can operate in DHCP mode. Each BaseStation 3200 is assigned to a FlowStation by programming the IP address of the FlowStation into the controller.

Where an existing network is not available, a radio network can be set up using Baseline Ethernet radios. Access to the Internet is not required. Please see the Ethernet Radio Technical Specification for more information about Baseline Ethernet radios.

## “X” Series Cabinets

### Large Metal Wall Mount Enclosure

- Stand-alone shared flow controller
- 15.50" W x 12.38" H x 6.40" D
- Available in 16-gauge steel & powder coated (X) & 16 gauge 304 Stainless steel (XS)
- Interior/exterior mount
- Ethernet port included
- Compatible with Wi-Fi and Ethernet radio communication modules

**How to Specify:**  
BL-FLOWSTN-X

### Pedestal Base for “X” Series Cabinets

- 15.50" W x 23.00" H x 6.40" D
- Available in 16-gauge steel & powder coated (XP) & 16 gauge 304 stainless steel (XSP)

**How to Specify:**  
BL-XP



## Module for “P” Series Pedestals

### Add-on Module for Stainless Steel Pedestal Enclosures

- Ethernet port and Ethernet switch (BL-ETH-SW) included
- Compatible with Wi-Fi and Ethernet Radio communication modules

**How to Specify:**  
BL-FLOWSTN-P



## Communication Options

FlowStations in the “X” and “XS” enclosures are large enough to hold the controller and a communication module. The communication module will be built into the enclosure by the factory when ordered together. When adding a FlowStation into the enclosure of a BaseStation 3200 Pedestal, the communication module should be specified as part of the controller. Refer to the BaseStation 3200 Configuration and Specification Guide for more information.



### “WL” Ethernet

Every FlowStation has a built-in Ethernet port. No additional hardware is required for Ethernet-based communication.



### “WF” Wi-Fi Communication Modules

The FlowStation is compatible with a Wi-Fi Module. To add a Wi-Fi module to a FlowStation in an X enclosure, specify the following part number:

Part Number BL-FLOWSTNWF-X



### “ER” Ethernet Radio (Spread Spectrum) Communication Modules

The FlowStation is compatible with Baseline Ethernet Radio modules. To add an Ethernet Radio module to a FlowStation in an X enclosure, specify the following part number.

Part Number BL-ER-X

Every Ethernet radio configuration requires at least one radio that is configured as a gateway. The BL-ER-C is an Ethernet radio in a “C” series enclosure with factory default settings as a gateway. It can also be configured as a repeater. One repeater may be inserted between a gateway and endpoint if required.



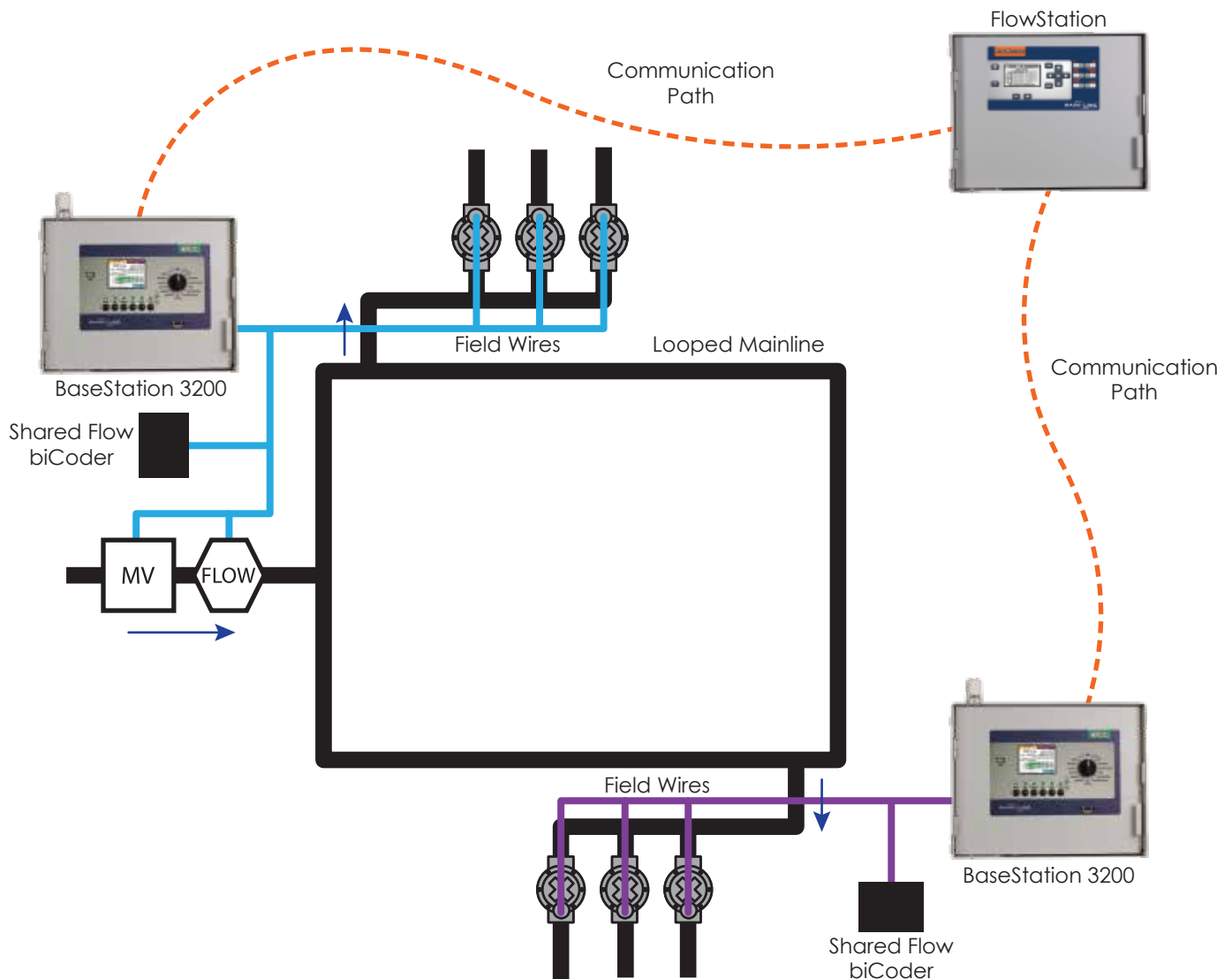
### 3-Port Ruggedized Ethernet Switch

When there are multiple devices that require an Ethernet connection, a 3-port Ethernet switch should be specified along with the BaseStation 3200 or the FlowStation. To determine if an Ethernet switch is required, count the number of devices in an enclosure that have an Ethernet Port. If there is more than one device that has an Ethernet port and only one Ethernet connection is available, an Ethernet switch is required. The FlowStation, BaseStation 3200 controllers, Ethernet Radios, and Wi-Fi modules all have Ethernet ports. When a FlowStation is specified for a BaseStation 3200 controller in a stainless-steel pedestal (BL-FLOWSTN-P) an Ethernet switch is included.

Part Number BL-ETH-SW

**NOTES:** The FlowStation is not compatible with cellular based communication modules. Ethernet and Wi-Fi modems may require some network/IT setup. Ethernet connections require a physical connection to the local network, so an Ethernet drop should also be specified. An Ethernet radio is a spread spectrum radio that operates between 902 MHz and 928 MHz. Ethernet radios require line-of-sight communications and can typically communicate up to 1 mile when properly configured with appropriate radio locations and antennas.

## Single Point of Connection on a Shared Looped Mainline



### How to Specify:

**BL-FLOWSTN-X** - FlowStation Shared Flow Controller

- Designate a pedestal enclosure by substituting a P
- Include communication module as required

Example: BL-ER-P

- Add a 3-port Ethernet switch as required

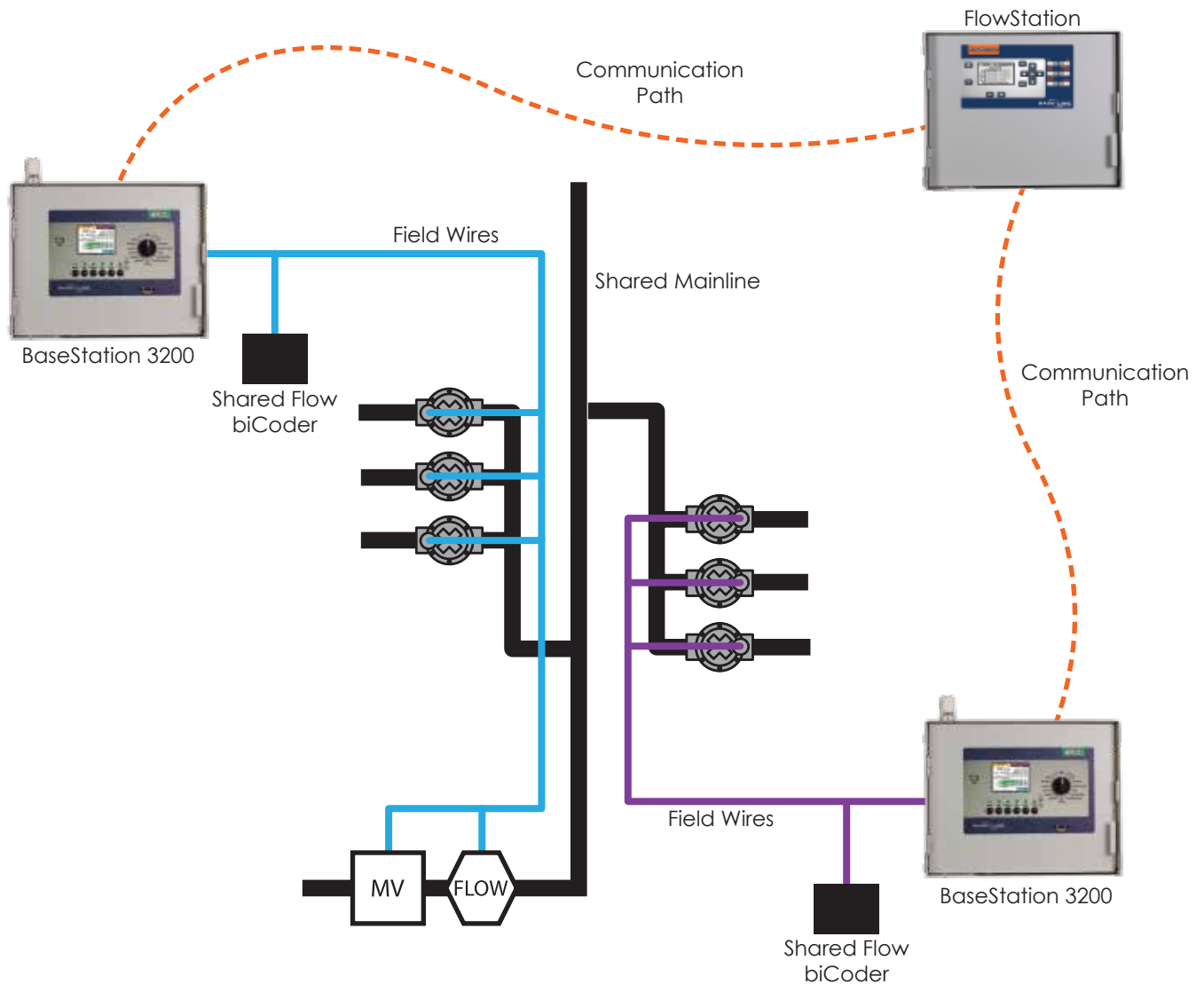
Part Number: BL-ETH-SW

**BL-3200** - BaseStation 3200 controllers

- See the BaseStation 3200 Configuration & Specification Guide for more information on specifying BaseStation 3200 systems

**BL-3200UPG-SF** - Shared Flow biCoder for each BaseStation 3200

**Single Point of Connection on a Shared Mainline**



**How to Specify:**

**BL-FLOWSTN-X** - FlowStation Shared Flow Controller

- Designate a pedestal enclosure by substituting a P
- Include communication module as required

Example: BL-ER-P

- Add a 3-port Ethernet switch as required

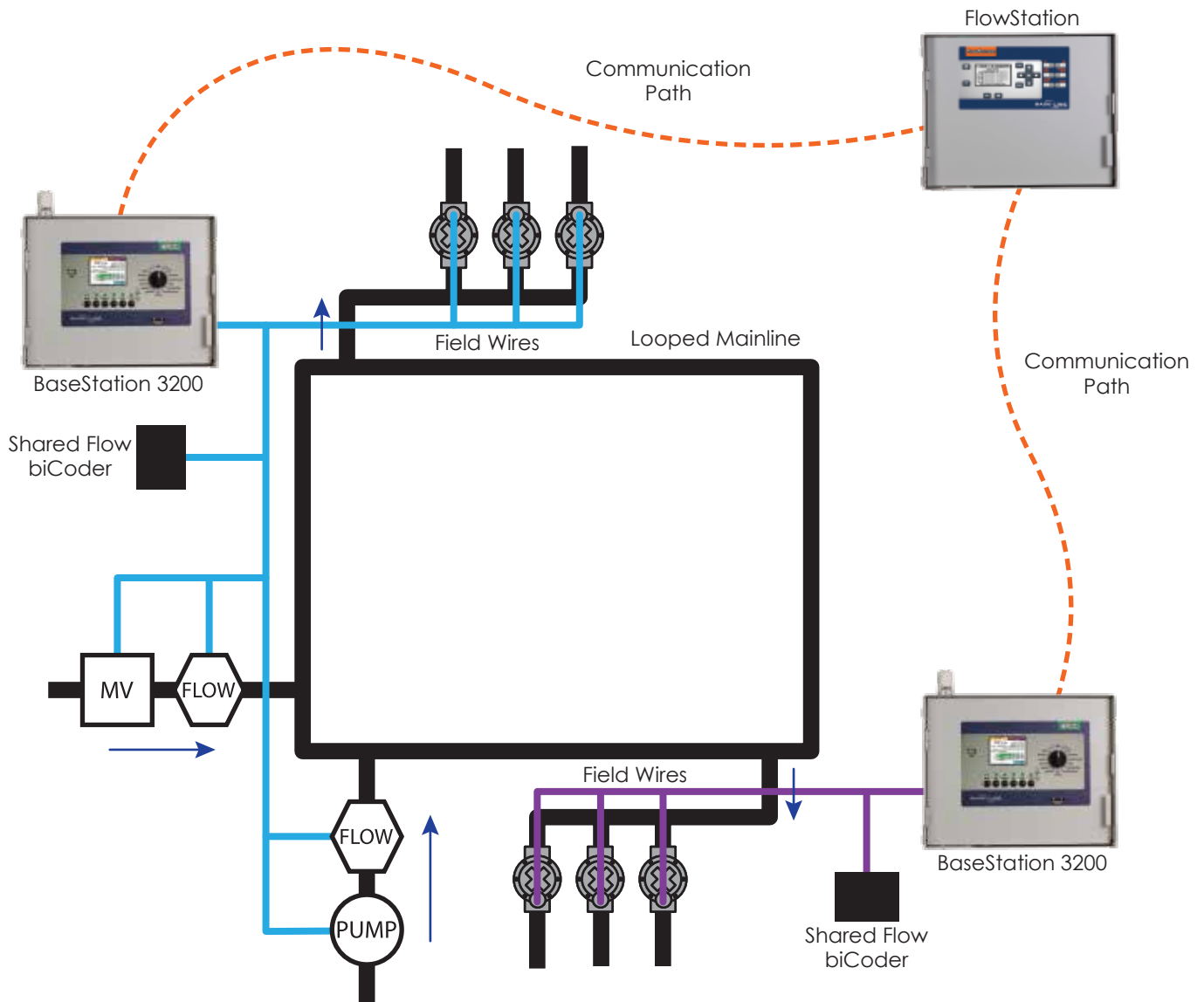
Part Number: BL-ETH-SW

**BL-3200** - BaseStation 3200 controllers

- See the BaseStation 3200 Configuration & Specification Guide for more information on specifying BaseStation 3200 systems

**BL-3200UPG-SF** - Shared Flow biCoder for each BaseStation 3200

**Multiple Points of Connection on a Shared Looped Mainline**



**How to Specify:**

**BL-FLOWSTN-X** - FlowStation Shared Flow Controller

- Designate a pedestal enclosure by substituting a P
- Include communication module as required
- Example: BL-ER-P
- Add a 3-port Ethernet switch as required
- Part Number: BL-ETH-SW

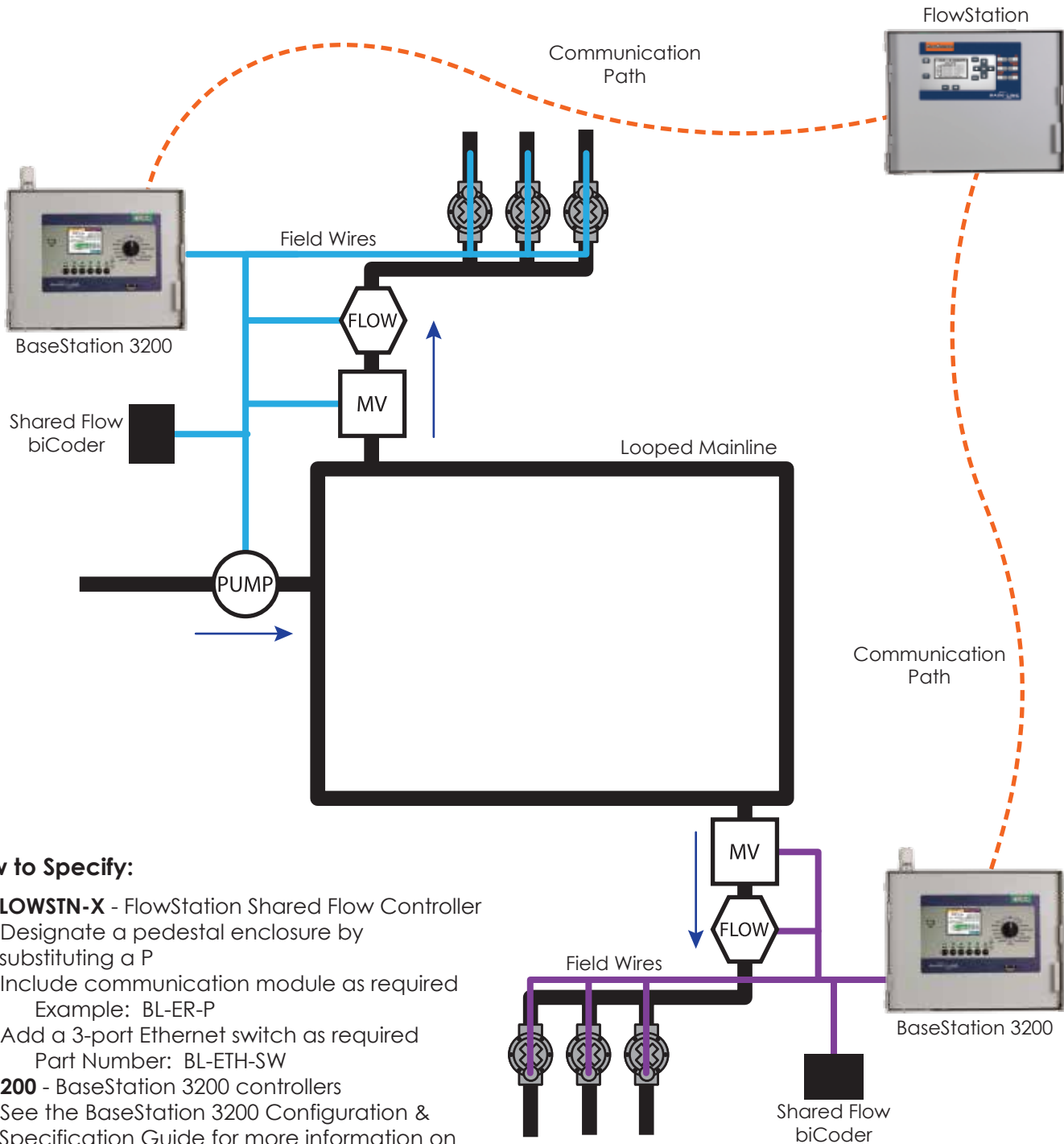
**BL-3200** - BaseStation 3200 controllers

- See the BaseStation 3200 Configuration & Specification Guide for more information on specifying BaseStation 3200 systems

**BL-3200UPG-SF** - Shared Flow biCoder for each BaseStation 3200



**Multiple Points of Connection pulling from a Single, Shared Point of Connection**



**How to Specify:**

**BL-FLOWSTN-X** - FlowStation Shared Flow Controller

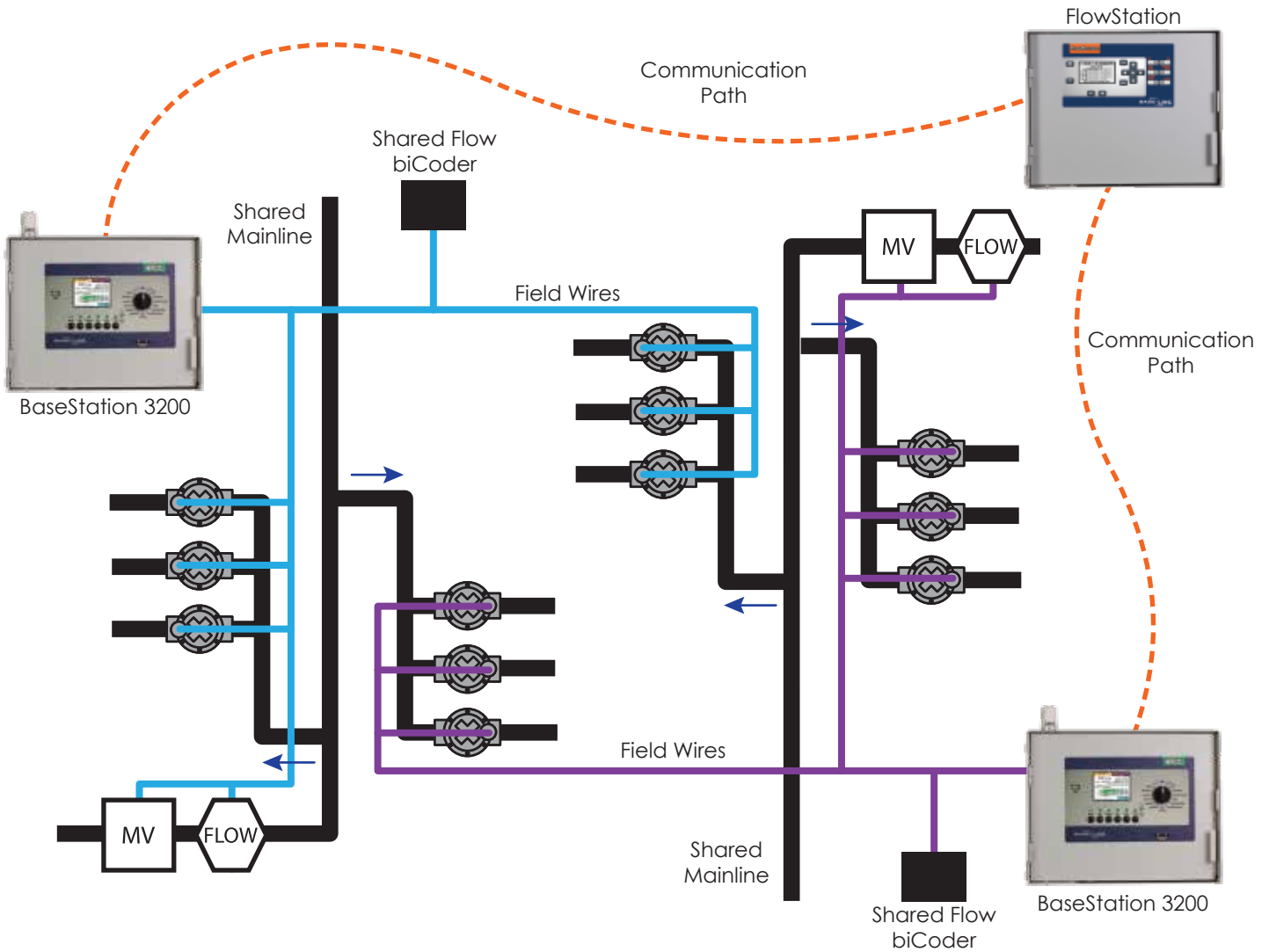
- Designate a pedestal enclosure by substituting a P
- Include communication module as required  
Example: BL-ER-P
- Add a 3-port Ethernet switch as required  
Part Number: BL-ETH-SW

**BL-3200** - BaseStation 3200 controllers

- See the BaseStation 3200 Configuration & Specification Guide for more information on specifying BaseStation 3200 systems

**BL-3200UPG-SF** - Shared Flow biCoder for each BaseStation 3200

**Separate Points of Connection Shared Between Multiple Controllers**



**How to Specify:**

**BL-FLOWSTN-X** - FlowStation Shared Flow Controller

- Designate a pedestal enclosure by substituting a P
- Include communication module as required

Example: BL-ER-P

- Add a 3-port Ethernet switch as required

Part Number: BL-ETH-SW

**BL-3200** - BaseStation 3200 controllers

- See the BaseStation 3200 Configuration & Specification Guide for more information on specifying BaseStation 3200 systems

**BL-3200UPG-SF** - Shared Flow biCoder for each BaseStation 3200



[www.baselinesystems.com](http://www.baselinesystems.com)  
866.294.5847