

## Using a Marsh-McBirney Flo-Logger to pace a Hach Sigma SD900 Sampler

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### Safety Information

Please read this entire document before unpacking, setting up, or operating this equipment. Pay attention to all danger and caution statements. Failure to do so could result in serious injury to the operator or damage to the equipment.

Make sure that the protection provided by this equipment is not impaired, do not use or install this equipment in any manner other than that specified in this document.

#### Use of Hazard Information

##### **WARNING**

**Indicates a potentially or imminently hazardous situation which, if not avoided, could result in death or serious injury.**

##### **CAUTION**

**Indicates a potentially hazardous situation that may result in minor or moderate injury.**

*Note: Information that supplements points in the main text.*

#### Precautionary Labels

Read all labels and tags attached to the instrument. Personal injury or damage to the instrument could occur if not observed. A symbol, if noted on the instrument, will be included with a danger or caution statement in the manual.



Electrical equipment marked with this symbol may not be disposed of in European public disposal systems after 12 August of 2005. In conformity with European local and national regulations (EU Directive 2002/96/EC), European electrical equipment users must now return old or end-of life equipment to the Producer for disposal at no charge to the user.

**Note:** For return for recycling, please contact the equipment producer or supplier for instructions on how to return end-of-life equipment, producer-supplied electrical accessories, and all auxiliary items for proper disposal.

### Overview



#### **WARNING**

**Possible Explosion Hazard. The sampler connection is not applicable for a direct connection to flow meters classified for use in hazardous locations without approved barriers. If the connection is to a flow meter that is classified for, and used in, a hazardous location, refer to the flow meter control drawing for connection requirements.**

The Marsh-McBirney Flo-Logger and auxiliary interface cable have the necessary interface to give pulse outputs to the Hach Sigma SD900 controller. The universal junction box has the necessary interface to let the Hach Sigma SD900 controller accept the contact closure pulses from the Flo-Logger.

## Applicable components

- Marsh-McBirney Flo-Logger model 1004-10E or 1004-20E
- Hach Sigma SD900 Sampler
- Auxilliary interface cable (131019401)
- Universal Junction Box (8760600)

## Flow proportional pulse mode

In pulse mode, each pulse or contact closure by the Flo-Logger shows the measurement of a specified flow volume. These signals occur more frequently at higher flow rates and less frequently at lower flow rates. The SD900 can collect from 1 to 9,999 pulses or closures.

## Wiring information

Use [Figure 1](#) to connect the Marsh-McBirney Flo-Logger to the Universal Junction Box. Refer to the Universal Junction Box instruction sheet for more connection data.

**Important Note:** Do not connect the Flo-Logger to the Universal Junction Box when the SD900 sampler is configured for 4-20mA input.

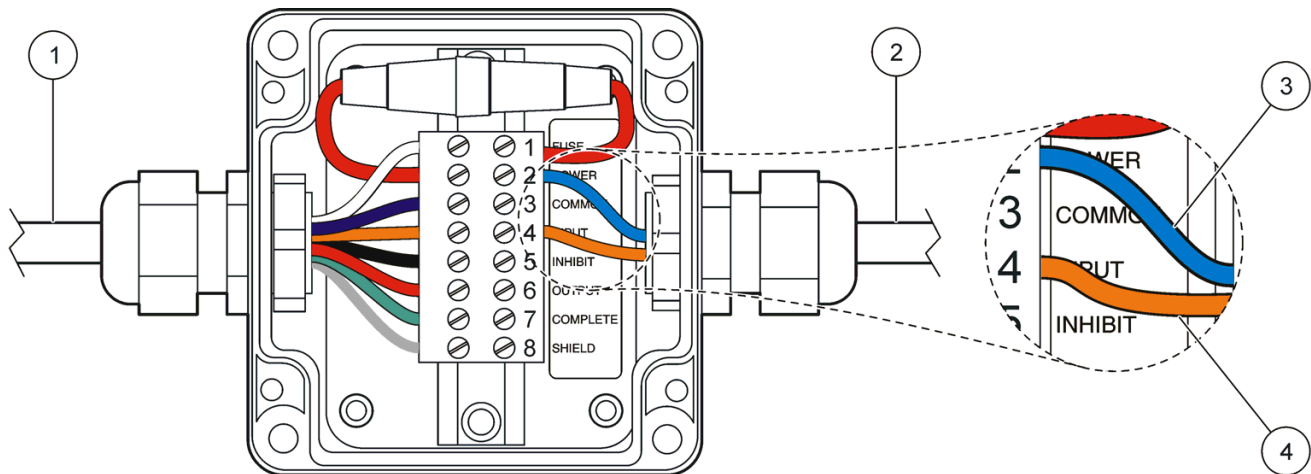


Figure 1 Terminal wiring for Flo-Logger

1	To SD900 controller auxillary connector	3	Auxillary interface cable (Blue wire) to Terminal 2
2	To 1004-10E or 1004-20E Flo-Logger I/O connector	4	Auxillary interface cable (Orange wire) to Terminal 4

## SD900 setup for flow pulse input

To set flow proportional sampling using flow pulse input on the SD900 controller, follow these steps:

1. From the main menu, select **PROGRAM SETUP>MODIFY SELECTED>SAMPLE PACING>FLOW BASED**.
2. Set **COUNTS** as the **FLOW SOURCE**.
3. Enter the number of counts that must accumulate to trigger a sample.

## Flo-Logger setup for flow pulse output

To set flow pulse output on the Flo-Logger, follow these steps:

1. Start Flo-Ware. From the main menu, click **COMMUNICATE WITH AN INSTRUMENT>FLO-DAR>COMMUNICATIONS**.
2. From the Site ID drop-down box, select the site to setup. If you are connected to the Flo-Logger you can alternately click the **READ SETUP** button.
3. From the Extended Setup drop-down list, select **CONTACT CLOSURE**. The Contact Closure window is shown.
4. In the Contact Closure window, check the **Active** check box.
5. In the Trigger From drop-down box, select **FLOW**.
6. In the Trigger Mode drop-down box, select **FLOW PROPORTIONAL**.
7. In the Trigger Value box, enter the flow volume required to generate a pulse output.
8. For the SD900 Sampler, enter 500 ms in the Pulse Duration box.
9. Click the **OK** button to save the contact closure settings and return to the main Communications window.

*Note: To proceed to Step 10 you must be connected and able to communicate with the Flo-Logger.*

10. Click the **SEND SETUP** button to send the configuration information to the Flo-Logger.

*Note: The Send Setup function will clear any data stored in the Flo-Logger. Download any stored data before clicking the **SEND SETUP** button.*

11. From the Extended Setup drop-down list, select **CONTACT CLOSURE**. Click the **TEST** button to test the contact closure.



**FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING:**

In the U.S.A. – Call toll-free 800-368-2723

Outside the U.S.A. – Contact the Marsh-McBirney office or distributor serving you.

On the Worldwide Web – [www.marsh-mcBirney.com](http://www.marsh-mcBirney.com)

E-mail for Support – [service@marsh-mcBirney.com](mailto:service@marsh-mcBirney.com) E-mail for Sales – [sales@marsh-mcBirney.com](mailto:sales@marsh-mcBirney.com)

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