

Wiring a BROOKS® Small Volume Prover to the MicroMV Prover Computer

Introduction

In order for the MicroMV flow computer to operate a Brooks SVP it is needed to have both, the right flow computer configuration as well as the right wiring to the Brooks interface board.

Prover Configuration

The configuration of the prover computer varies according to the liquid product to be proved and the type of small volume prover being used.

When using Brooks® configure the prover parameters as follows:

- Prover type must be set to **Ballistic** type (Option 0).
- Select Detector switch type to be **Single Gate 1 (Active Low)**^{note1}
- Set the **Single Detector Delay** to 1 second.
- Set the Gate sensitivity to low voltage (**9V to 12V Option**)
- Set Upstream Signal Polarity to **Active LOW**.
- Configure the Run Output signal polarity to **Active HIGH**.
- Configure the rest of the parameters according to the size of your prover and your company guidelines for accuracy and repeatability.

Note 1: In case of detector switch 1 damage on the MicroMV board, Detector Switch 2 can be used instead. Both, the configuration and the electrical wiring must be changed accordingly.

If you are bringing the Shaft temperature into the flow computer make sure to include the Detector Mounting Calibration Section and configure the shaft parameters needed. If you don't have a live shaft temperature DO NOT include the Detector mounting because this will affect the final Meter Factor result.

Wiring Instructions



WARNING

SERIOUS PERSONAL INJURY OR DEATH

Always use caution when working with high voltage electrical circuits.

Figure 1 below is the drawing for electrical wiring between the Brooks® prover interface board and the MicroMV Prover computer. The cable colors indicated in the drawing are the ones commonly found in these boards but they may differ from your actual model.

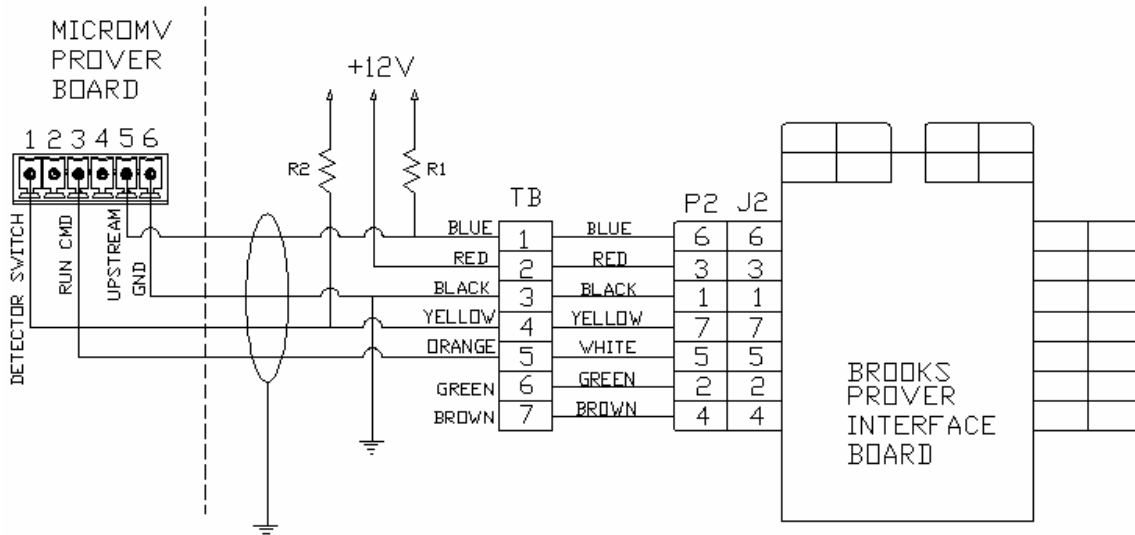


Figure 1 – Brooks Compact Prover Wiring

Notes:

- Pull up resistors R1 and R2 are 220 Ohms 5% 1 Watt.
- Upstream Signal is also called “Prover Ready” in Brooks terminology
- Run Command is also called “Prove Launch” in Brooks terminology
- Detector Switch can be also called “Gate” or “Pick-Off”
- This wiring diagram is correct as of January 2008. For newer installations please contact Dynamic Flow Computers, Inc. or Daniel Measurement, Inc.

Brooks® Compact Prover is a register trademark of Daniel Measurement and Control, Inc.