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Find the *MKS Instruments 247* at our website: *Click HERE*

System Configurations

The 247 unit can be configured for manual, external set point, or remote operation. The various system configurations and the required cabling are shown in Figures 4 to 6, pages 27 to 29. The system interface cables are listed in Table 5, page 20.

Refer to *Chapter Four: Operation*, page 51, for information on the setup and operation of these systems.

Manual Flow Control

Figure 4 illustrates a simple manual control system which requires only the use of the MFC interface cables.

With this configuration, the flow rate for each gas can be individually controlled with a front panel SET POINT CONTROL, or Channels 2 to 4 can be ratioed to the flow in Channel 1. Another four channels may be additionally ratioed to Channel 1 by adding a second 247 unit to the system.

Note An extra power supply is needed if using more than 2 channels on the 247 unit with 1559 MFCs.

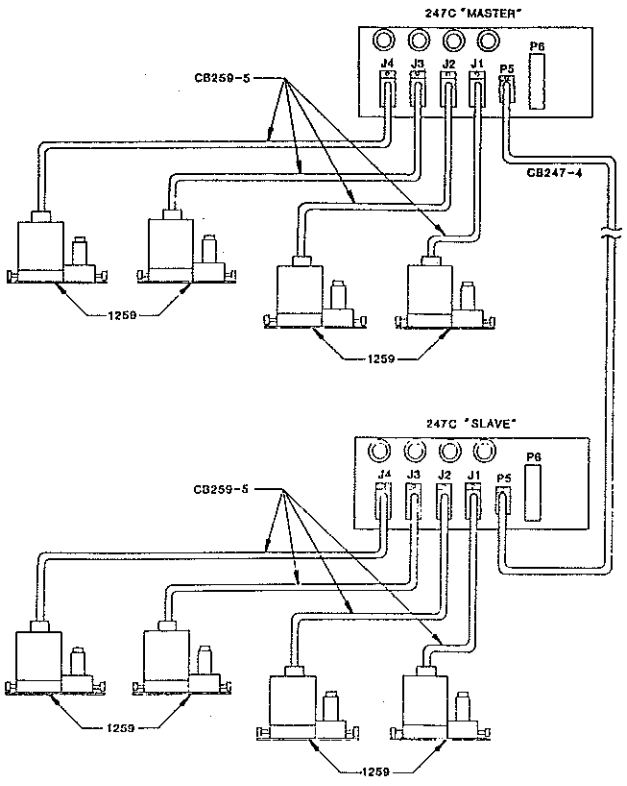


Figure 4: Manual Flow Control

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External Flow Control

Flow control can be accomplished using a set point signal from an external controller only, or can be ratioed using an external controller and a pressure transducer.

Figure 5 illustrates pressure control with an external controller; the gas flow into a chamber is controlled to maintain a constant pressure. This system configuration requires the 247 unit, a controller, and a pressure transducer. More than four gases may be controlled by adding a second 247 unit to the system.

Note

Any controller and pressure transducer may be used provided the signal that enters the 247 unit goes positive with increasing flow (correct polarity). Throughout this manual, the MKS Type 250 Pressure/Flow Controller and Type 127/227 Baratron® Pressure Transducers are used for example only.

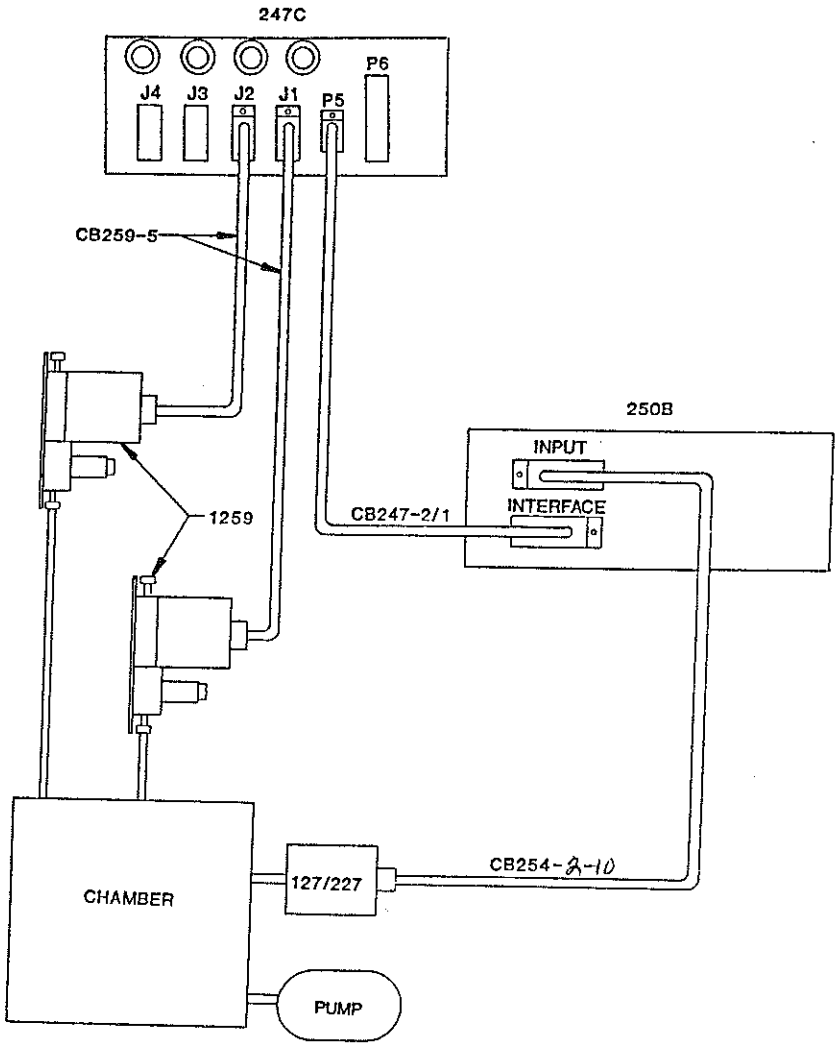


Figure 5: Pressure Control with an External Controller

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