



Option 20 — Setting Up the External Input

The flow meter can be configured with an analog input that is used for automatically adjusting for shifting gas compositions, automatically selecting a different predefined gas calibration, automatically adjusting the flow measurement correction factor, or initiating a purge.

To access the External Input Setup option in Program mode:

1. Press **P**.
2. Enter the Advanced Access password, and then press **E**.
3. Press **2** to invoke the Quick Jump option.
4. Press **20** for the External Input Usage menu, and then press **E**.
5. Press the arrow keys to select the **VM REFERENCE**, **CAL DATA SW**, **REMOTE CF**, or **PURGE COMMAND** function, and then press **E**.

VM REFERENCE is used to adjust the composition of a binary gas mix.

CAL DATA SW is used to select an alternate gas calibration curve.

REMOTE CF is used to select a correction factor for the flow measurement.

PURGE COMMAND is used to trigger a sensor purge.

When the External Input feature is already configured with one of the available functions and you are attempting to change it, the following prompt appears:

```
_____  
EXT INPUT IS  
CURRENTLY USED  
_____
```

6. Press **E**.

```
_____  
CHANGE IT?  
>NO      ^v  
_____
```

The prompt allowing you to change the assignment appears.

7. Use the arrow keys to select **YES**, and then press **E**.

Additional prompts appear depending on the function assigned to the External Input.



VM Reference

When using the shifting gas composition feature, the External Input Usage must be set to VM Reference.

To access the External Input Setup option in Program mode:

1. Press **P**.
2. Enter the Advanced Access password, and then press **E**.
3. Press **2** to invoke the Quick Jump option.
4. Press **20** for the External Input Usage menu, and then press **E**.

```
EXT INPUT USAGE
>VM REEFERENCE ^v
```

5. Select **VM REFERENCE**, and then press **E**.

The prompt for linearizing the scale unit of the 4-20mA signal appears.

```
SCALE UNIT
>%
```

6. Enter the scale unit as a percentage by pressing **1** until **%** appears, and then press **E**.

```
SCALE UNIT
>0%
```

The prompt for the percent value equivalent to the 4mA signal appears.

7. Enter **0%**, and then press **E**.

The prompt for the percent value equivalent to the 20mA signal appears.

```
SCALE UNIT
>100%
```

8. Enter **100%**, and then press **E**.

The prompt returns to the main Program prompt.



Calibration Data SW

When using the multiple calibration curve feature, the External Input Usage must be set to CAL DATA SW.

To access the External Input Setup option in Program mode:

1. Press **P**.
2. Enter the Advanced Access password, and then press **E**.
3. Press **2** to invoke the Quick Jump option.
4. Press **20** for the External Input Usage menu, and then press **E**.
5. Select **CAL DATA SW**.

The prompt returns to the main Program prompt.

Remote CF

When using the Remote Correction Factor feature, the External Input Usage is set to REMOTE CF.

To access the External Input Setup option in Program mode:

1. Press **P**.
2. Enter the Advanced Access password, and then press **E**.
3. Press **2** to invoke the Quick Jump option.
4. Press **20** for the External Input Usage menu, and then press **E**.
5. When you select **REMOTE CF**, the following prompt appears:

```
SCALE UNIT  
>SFPM
```

The Scale Units appears.

6. Press **E**.

```
INPUT VAL AT 4mA  
>0.00000000 SFPM
```

The prompt for the 4mA input value appears. The 4mA value prompt sets the minimum value for the flow rate or velocity units.



7. Press the numeric keys to enter the low flow limit, and press then **E**.

```
INP VAL AT 20mA  
>10000.0000 SFPM
```

The prompt for the 20mA input value appears. The 20mA value prompt sets the maximum value for the flow rate or velocity units.

8. Press the numeric keys to enter the upper flow limit, and press then **E**.

```
FILTER TC  
>0.50000 SEC
```

The prompt for the filter time constant value appears.

9. Press the numeric keys to enter the seconds for the time constant, and then press **E** to return to the main Program prompt.

Purge Command

When using the purge feature, the External Input Usage is set to Purge Command.

To access the External Input Setup option in Program mode:

1. Press **P**.
2. Enter the Advanced Access password, and then press **E**.
3. Press **2** to invoke the Quick Jump option.
4. Press **20** for the External Input Usage menu, and then press **E**.
5. Select **PURGE COMMAND**.

The prompt returns to the main Program prompt.