



## Option 13 — Calibration Data

The flow meter is configured based on the order specifications. Changing the calibration information can affect the accuracy and reliability of information.

**Note:** Calibration should only be changed by Kurz Field Service or under authorization from Kurz. There is no “undo” capability once a change is entered and another prompt appears.

To access the Calibration Data menu in Program mode:

1. Press **P**.
2. Enter your **Advanced** access password, and then press **E**.
3. Press **2** to invoke the Quick Jump option.
4. Press **13** for the **Calibration Data** menu, and then press **E**.

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```
SENSOR SN
FD9079A
```

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A prompt appears showing the sensor serial number. This is read only.

5. Press **E**.

---

```
CAL FLOW UNIT
>SMPS ^v
```

---

The Calibration Flow Unit prompt appears.

**Note:** Changing the units does not change the reporting units and will negatively impact the accuracy of the flow meter.

6. Use the arrow keys to select **SCMH**, **SMPS**, **SCFM**, or **SFPM**. Press **E**.

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```
FACTORY STP REF
25DEGC/101.3KPA
```

---

The factory reference settings appear. This is read only.

7. Press **E**.

---

```
USER REF TEMP
>77.00000000 DEGF
```

---

The user reference temperature is typically based on the environment temperature, not the process temperature. Changing the reference temperature affects the Standard Temperature and Pressure (STP) settings of the original SFPM configuration. The reference STP is based on temperature and pressure values that maintain accurate readings during daily changes throughout a year.

8. Press **E**.



- 9. \_\_\_\_\_
- 10. USER REF PRESS
- 11. >14.6959500 PSIA
- 12. \_\_\_\_\_

The user reference pressure is typically based on elevation. The initial calibration is set at sea level. Changing the reference pressure affects the Standard Temperature and Pressure (STP) settings of the original SFPM configuration. The reference STP is based on temperature and pressure values that maintain accurate readings during daily changes throughout a year.

- 13. Use the number keys to change the reference pressure. Press **E**.

```

GAS NAME
>Air
    
```

The gas name prompt appears.

Gas names are referred to by their molecular formula.

Gas	Molecular Formula	Molar Weight	Gas	Molecular Formula	Molar Weight
Air	Air	28.97	Helium	He	4.00
Argon	Ar	39.94	Hydrogen	H2	2.02
Butane	C4H10	58.12	Digester gas (50 CH4, 50 CO2)	50/50	-
Carbon dioxide	CO2	44.01	Digester gas (60 CH4, 40 CO2)	60/40	-
Dry ammonia	NH3	17.04	Digester gas (70 CH4, 30 CO2)	70/30	-
Dry chlorine	CL2	71.0	Nitrogen	N2	28.02
Ethane	C2H6	30.07	Oxygen	O2	32.00
Ethylene	C2H4	28.05	Propane	C3H8	44.09

- 14. Type your gas name molecular formula. Press **E**.

```

GAS MOL WT
>28.9600000
    
```

The molar weight prompt appears.



15. Use the number keys to enter the molar weight associated with the gas. Press **E**.

---

```
NEW REF DENSITY:  
1.9684 KG/M3
```

---

The reference density is automatically generated based on the values entered for the reference temperature and reference pressure.

16. Use the number keys for a new reference density. Press **E**.

---

```
# CAL DATA SET  
> 2
```

---

The prompt appears allowing up to eight calibration sets.

17. Enter the number of curve set and then press **E**.

---

```
FLOW DATA SET 1  
>20.0000000 DEGC
```

---

You are prompted for the top degree range for the first curve.

18. Use the number keys to enter the value. Press **E**.

---

```
#DATA PTS CAL 1  
>13
```

---

You are prompted for the number of points within the curve. There can be up to 15 points.

19. Use the number keys to enter the value. Press **E**.

Each point requires a raw signal value and a flow data value. In this example, only the first two data point prompts are shown, but the format repeats for all data points in the data set and then for all the points in each additional data set.

20. For each data point use the number keys to enter the raw signal value and press **E**.  
Then enter the flow data value and press **E**.



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RAW SIGNAL S1- 1  
>0.16373000 W

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---

FLOW DATA S1- 1  
>0.00000000 SMPS

---

---

RAW SIGNAL S1- 2  
>0.21131000 W

---

---

FLOW DATA S1- 2  
>0.4550100 SMPS

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. . . . .

21. Press **P** if you want to skip entering a value.