**Table 3. Environmental Characteristics**

| Characteristic | Parameter |
|---|---|
| Humidity | 0% to 95% RH, non-condensing |
| Shock | 100 g, 11 ms |
| Vibration | 15 g at 20 Hz to 2000 Hz |
| ESD | Class 3B per MIL-STD 883G |
| Radiated immunity | Level 3 from (80 MHz to 1000 MHz) per spec IEC61000-4-3 |

**Table 4. Wetted Materials**

| Characteristic | Parameter |
|---|---|
| Covers | high temperature polymer |
| Substrate | PCB |
| Adhesives | epoxy |
| Electronic components | silicon, gold |
| Compliance | RoHS, WEEE |

**Table 5. Recommended Mounting and Implementation**

| Characteristic | Parameter |
|---|---|
| Mounting screw size | 5-40 |
| Mounting screw torque | 0.68 N m [6 in-lb] |
| Tubing for long port style | 70 durometer, size 0.125 inch inside diameter, 0.250 inch outside diameter silicone tubing |
| O-ring for short port style | AS568A, Size 7, Silicone, Shore A 70 |
| O-ring for long port style | AS568A, Size 10, Silicone, Shore A 70 |
| Filter recommendation | 5-micron filter upstream of the sensor |

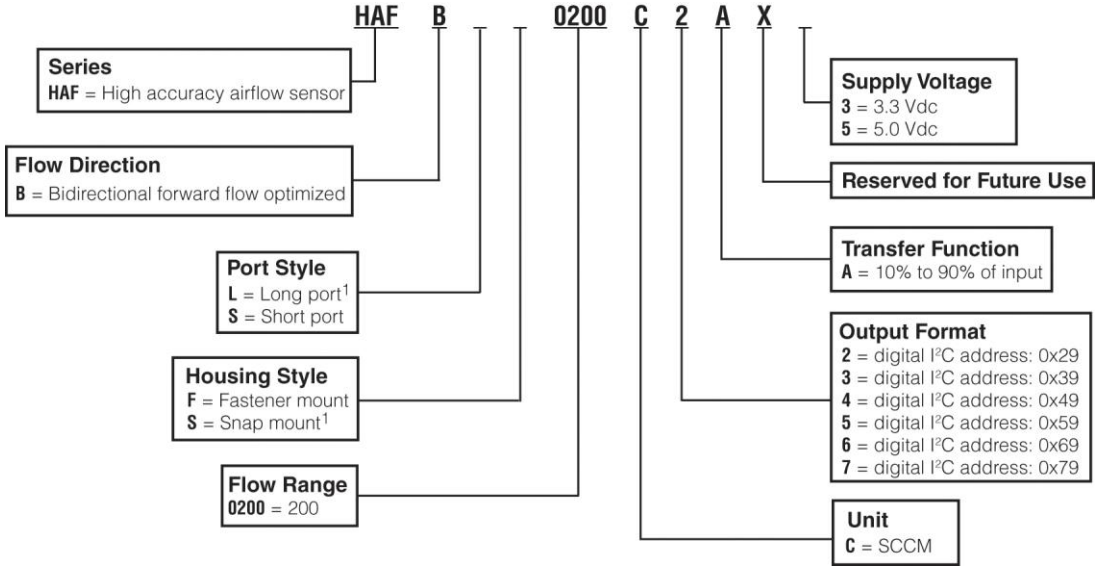
**CAUTION**

**LARGE PARTICULATE DAMAGE**

Use a 5-micron filter upstream of the sensor to keep media flow through the sensor free of condensing moisture and particulates. Large, high-velocity particles or conductive particles may damage the sensing element.

**Failure to comply with these instructions may result in product damage.**

**Figure 1. Nomenclature and Order Guide**




**Note:**

1. The Long Port **Port Style** with the Snap Mount **Housing Style** is not a valid configuration.

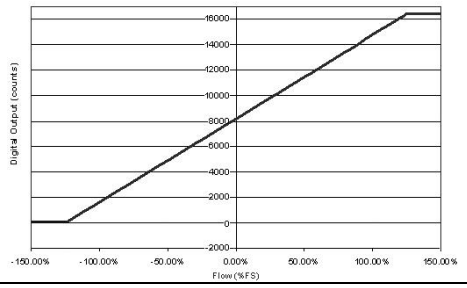
**Example Catalog Listing**

**HAFBLS0200C2AX5** = High accuracy airflow sensor, bidirectional forward flow optimized, long port style, snap mount housing, 200 SCCM, digital $I^2C$ output with 0X29 address, 10% to 90% transfer function, 5.0 Vdc supply voltage.

**Customer-specific Requirements**

Apart from the general configuration required, other customer-specific requirements are also possible. Please contact Honeywell.

**Figure 2. Nominal Digital Output**




**Ideal Transfer Function**

Digital Output Code = 16383 * [0.5 + 0.4 * (Flow Applied/Full Scale Flow)]

Flow Applied = Full Scale Flow * [(Digital Output Code/16383) - 0.5]/0.4

**Figure 3. Accuracy Error Band**

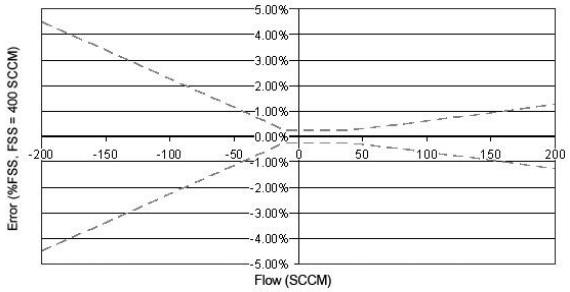



**Figure 4. Total Error Band**

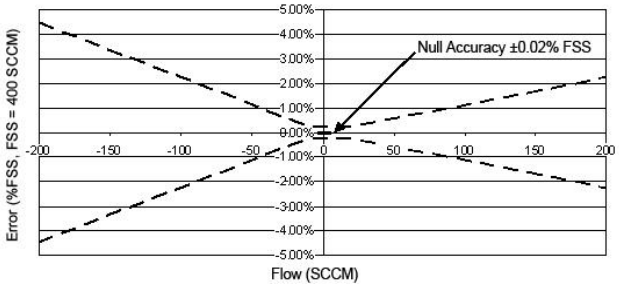
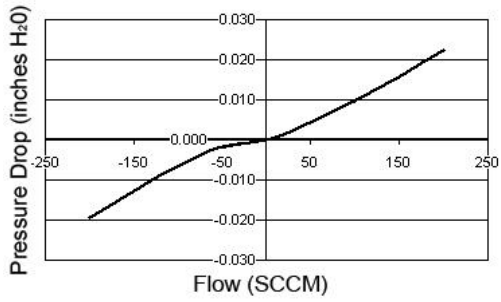
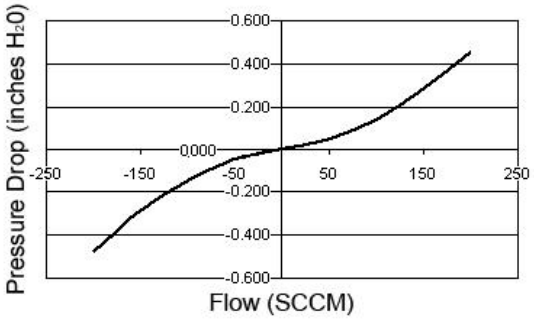



**Figure 5. Long Port Style Flow vs Pressure**




| Flow (SCCM) | Pressure Drop (inches $H_2O$) |
|---|---|
| -200 | -0.019 |
| -150 | -0.013 |
| -100 | -0.007 |
| -50 | -0.001 |
| 0 | 0.000 |
| 50 | 0.005 |
| 100 | 0.010 |
| 150 | 0.016 |
| 200 | 0.022 |

**Figure 6. Short Port Style Flow vs Pressure**




| Flow (SCCM) | Pressure Drop (inches $H_2O$) |
|---|---|
| -200 | -0.470 |
| -150 | -0.284 |
| -100 | -0.143 |
| -50 | -0.045 |
| 0 | 0.000 |
| 50 | 0.048 |
| 100 | 0.139 |
| 150 | 0.287 |
| 200 | 0.452 |