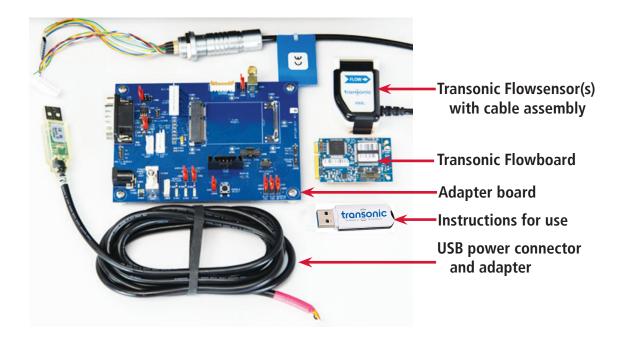
*Transonic-Inside* ™ OEM Development Kit



# **Complete Solution for OEM Application Testing**

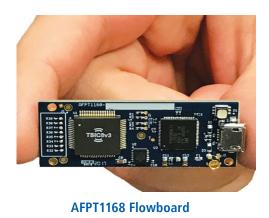
The *Transonic-Inside*<sup>™</sup> OEM Development Kit gives you the ability to test the capabilities and performance of the Flowboard and Flowsensor combination that best fits your specific biomedical device/ application. The kit comes complete with the components shown below.



### **Customizing Your Kit**

### 1. Choose your Transonic Flowboard

| Transonic<br>Flowboard   |        | AFPT1168                              | AFPT1199                        |  |
|--------------------------|--------|---------------------------------------|---------------------------------|--|
| Dimensions               | cm     | 4.45 x 1.78 x .<0.64 4.90 x 3.00 x 0. |                                 |  |
|                          | inches | 1.75 x 0.70 x <0.25                   | 1.93 x 1.18 x 0.20              |  |
| Power<br>Requirements    |        | 5.0 VDC at 0.25 Watt                  | 5.0 VDC +/- 0.25 at<br>0.5 Watt |  |
| UART Output<br>Interface |        | UART (SCI)                            | UART (SCI), CANopen             |  |



# *Transonic-Inside*<sup>™</sup> OEM Development Kit cont.

## **Customizing Your Kit cont.**

### 2. Choose your Transonic Flowsensor Size(s)

You can use the chart below to select the appropriate sensor size based on your tubing size.



**Tubing Sensor** 



|                | TUBING ID<br>(INNER DIAMETER) |              | TUBING WALL<br>THICKNESS |              | FLOW RATE SUPPORTED* |                     |
|----------------|-------------------------------|--------------|--------------------------|--------------|----------------------|---------------------|
| SENSOR<br>SIZE |                               |              |                          |              | LOW FLOW (1/4 SCALE) | STANDARD FLOW SCALE |
|                | mm                            | inches       | mm                       | inches       | L/min                | L/min               |
| 2              | 2.38                          | 3/32         | 0.79                     | 1/32         | 0.05 - 0.25          | 0.1 - 1             |
| 3              | 3.18                          | 1/8          | 0.79                     | 1/32         | 0.1 - 0.5            | 0.2 - 2             |
| 4              | 3.18                          | 1/8          | 1.59                     | 1/16         | 0.1 - 0.5            | 0.2 - 2             |
| 5              | 4.76                          | 3/16         | 1.59                     | 1/16         | 0.1 - 0.5            | 0.2 - 2             |
| 6              | 6.35                          | 1/4          | 1.59                     | 1/16         | 0.25 - 1.25          | 0.5 - 5             |
| 7              | 6.35                          | 1/4          | 2.38                     | 3/32         | 0.5 - 2.5            | 1 - 10              |
| 8              | 9.53<br>7.94                  | 3/8<br>5/16  | 1.59<br>2.38             | 1/16<br>3/32 | 0.5 - 2.5            | 1 - 10              |
| 9              | 9.53                          | 3/8          | 2.38                     | 1/16         | 0.5 - 2.5            | 1 - 10              |
| 10             | 12.70                         | 1/2          | 1.59                     | 1/16         | 1 - 5                | 2 - 20              |
| 11             | 12.70                         | 1/2          | 2.38                     | 3/32         | 1 - 5                | 2 - 20              |
| 12             | 12.70                         | 1/2          | 3.18                     | 1/8          | 1 - 5                | 2 - 20              |
| 14             | 15.88<br>17.46                | 5/8<br>11/16 | 3.18<br>2.38             | 1/8<br>3/32  | 2.5 - 12.5           | 5 - 50              |
| 16             | 19.05                         | 3/4          | 3.18                     | 1/8          | 2.5 - 12.5           | 5 - 50              |
| 20             | 25.40                         | 1            | 3.18                     | 1/8          | 5 - 25               | 10 - 100            |

\* Range includes zero. Any flow peask exceeding the Max Flow Value (-5 votl to +5 volt range) will be clipped. Measurements below lower linear limit may deviate from the stated accuracy specifications. Flow sensors can measure bi-directional flow.

#### 3. Determine Your Calibration Specifications

- Liquid type (e.g., blood, water/saline, Glycerine solution)
- Operational fluid temperature
- Expected flow rate/ range (the chart above includes low flow and standard flow scales).

Since fluid density and temperature alter the transit time of the ultrasound signal and affect the acoustic properties of the tubing, we calibrate sensors specifically for these parameters. Operational fluid temperature should be within  $\pm 2^{\circ}$ C of the specified calibration temperature. Specify up to four combinations of tubing, fluid, temperature, and flow rate for calibration. Fluid samples and MSDS information may be required for *custom calibration requests*.

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