

Virginia Wilson

**From:** Martin Sampson [msampson@hatchell.com]  
**Sent:** Tuesday, November 12, 2013 1:04 PM  
**To:** hatchell.sales@hatchell.com  
**Subject:** FW: TSI TECH TIPS #9

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**From:** TSI Inc [mailto:tsi@tsi.ccsend.com] **On Behalf Of** TSI Inc  
**Sent:** Tuesday, November 12, 2013 1:00 PM  
**To:** info@hatchell.com  
**Subject:** TSI TECH TIPS #9

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UNDERSTANDING,  
ACCELERATED

TSI TECH TIPS

## Expand your Expertise of TSI Controls



### TSI Tech Tips #9

*\*\*As the designated marketing communications contact from your TAP contract, we request that you forward this communication on to all applicable individuals within your organization. Thank you in advance for your help ensuring that TSI communications reach the appropriate individuals in a timely manner.\*\**

#### **TSI Pressure Transducer Selections**

TSI's controls are among the most flexible on the market today. At some point, you may quote a project that is asking for a PresSura™ unit without using the standard TSI THROUGH-WALL sensor, but instead utilizes a pressure transducer for pressure measurement. This Tech Tip will help you choose the correct pressure transducer for your project.

There are basically two types of applications to discuss with you today:

- Hospital Applications
- Cleanroom Applications

#### **Hospital Applications**

Typical what we have seen in the field is that all isolation rooms and operating rooms need to be controlled or balanced to a pressure differential greater than +/- 0.0100"H2O or 2.491 Pascal. In this application you will need to quote a TSI Model Number 801916.

TSI Model 801916 Specifications:

- Ashcroft® Model CXLdp (CX4MB21OP1IWL)
- Range: +/-0.1"H2O
- Accuracy: +/-0.8% span
- Output: 0 to 10 VDC bidirectional
- Supply: 24 AC/DC current 6mA,
- Note: All three wire device are not electrically isolated

### **Cleanroom Applications**

Usually Cleanrooms are controlled or monitored to a pressure differential greater than + 0.1000"H2O or 24.910 Pascal. In this type of application you will need to quote a TSI Model Number 801917.

TSI Model 801917 Specifications:

- Ashcroft® Model CXLdp (CX4MB21OP25IWL)
- Range: +/-0.25"H2O
- Accuracy: +/-0.8% span
- Output: 0 to 10 VDC bidirectional
- Supply: 24 AC/DC current 6mA,
- Note: All three wire device are not electrically isolated

### **Challenge Question:**

*A SPECIAL TSI gift to the first two people to answer this question correctly.*

We have another pressure transducer that is available in the TSI price catalog; it is a MAMAC® PR-274-R2 (TSI Model number 804139.) Looking at the MAMAC specifications below, do you think this pressure transducer would work for Hospital and Cleanroom applications? Why or why not?

TSI Model 804139 Specifications:

- MAMAC PR-274-R2
- Unidirectional Ranges: 0 to 1.0"H2O, 0 to 0.50"H2O, 0 to 0.25"H2O
- Bidirectional Ranges: +/-1.0"H2O, +/-0.50"H2O, +/-0.25"H2O
- Accuracy: +/-1.0% Full Scale
- Output: 0 to 10 VDC
- Supply: 24 AC/DC current 5mA,
- Note: All three wire device are not electrically isolated

Please send answers to [eknutson@tsi.com](mailto:eknutson@tsi.com) and I will post the correct answer at a later date.

We hope you found this information helpful, interesting and relevant. Stay tuned

for future Tech Tips from TSI. You can find all previous TSI Tech Tips on the [Channel Partner Portal](#) under Products & Search > TSI Confidential > Training Materials > Application Materials. This Tech Tip will be posted after the answer to the Challenge Question is revealed.

Please contact TSI with your technical and application questions.

**Sincerely,**



Erik J. Knutson  
Application Specialist  
TSI Incorporated

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