

# FOIL PRESSURE SENSORS FOR INDUSTRIAL OEM SPRAYERS

Application Note

The use of industrial automated sprayers is a more advanced and efficient way to apply sealants, coatings, paints, and other media.

## BACKGROUND

Automated sprayers consistently produce a more uniform and higher quality coating, as compared to manual sprayers.

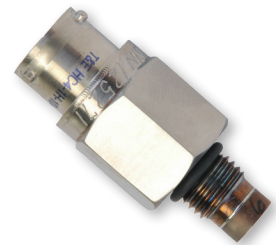
Industrial manufacturers of paints, coatings, sealants, adhesives, or lubricant dispensing equipment require continuous and accurate pressure feedback to insure proper and uniform dispensing is being applied to the product. Certain changes in pressure, during this process, can indicate a non-uniform dispensing of the media; such as formation of air pockets or blockage, which can trigger a timely process change or adjustment to the system.

## SOLUTIONS

Quality assurance is a key requirement driving this need. Honeywell's flush-mount, miniature foil pressure sensors utilize real-time pressure sensing to ensure product is being properly dispensed from the equipment through highly reliable and quality performance.

With their all-welded stainless steel construction, Models S and A-105 flush pressure transducers can handle a wide temperature range to fill many applications. These transducers are fully temperature compensated to offer stability under varying temperature conditions. In addition, they feature non-clogging and ease of cleaning capabilities. Easily and quickly customized, Models S and A-105 may be modified with customer specified threads, connectors, and cables for use in specific spraying and dispensing applications.

Model S subminiature pressure sensors accurately measure pressure ranges from 100 psi to 15000 psi. These gage-only transducers have a high natural frequency and utilize a flush diaphragm. These transducers have a small electrical zero balance circuit board which is in the lead wire (approximately 1 in x 0.087 in thick). All transducers have four (4) active bonded strain gages arranged in a Wheatstone-bridge configuration.

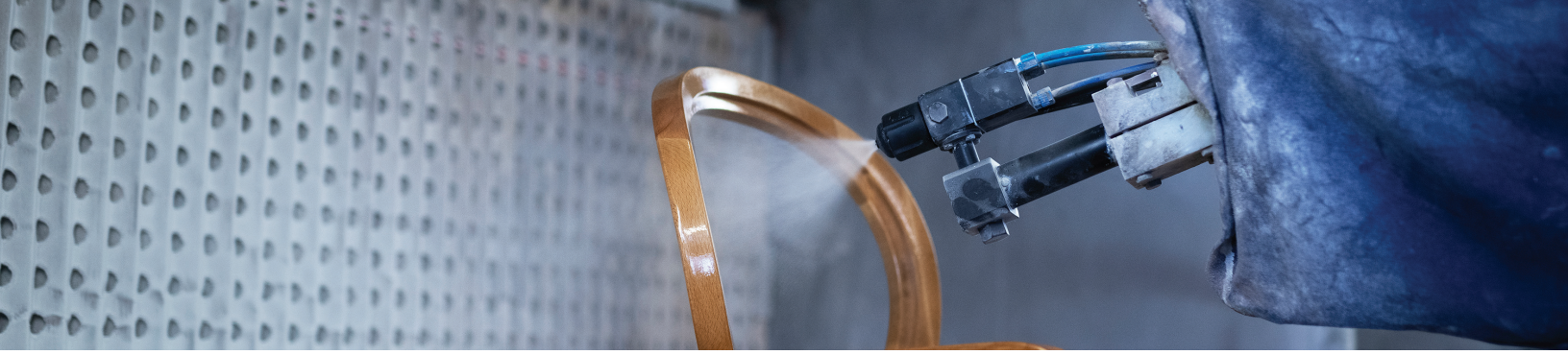


[Model A-105 Pressure Transducer](#)



[Model S Subminiature Pressure Transducer](#)

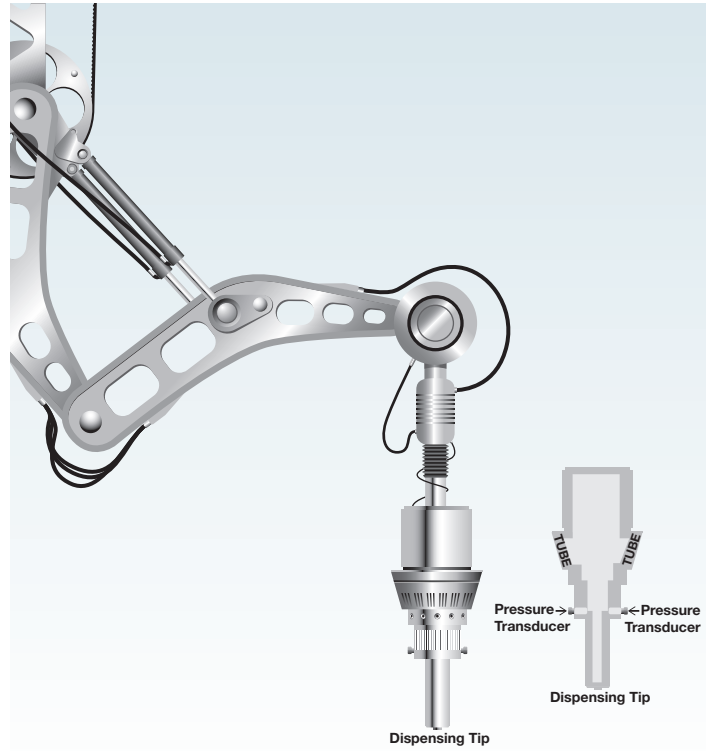
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**TABLE 1. FEATURES AND BENEFITS**

MODEL A-105	MODEL S
<ul style="list-style-type: none"> <li>• 100 psig to 15000 psig range</li> <li>• Flush mount design</li> <li>• No dead volume</li> <li>• Miniature footprint</li> <li>• Stainless steel</li> <li>• CE approved</li> </ul>	<ul style="list-style-type: none"> <li>• 100 psi to 15000 psi range</li> <li>• Flush mount design</li> <li>• No internal dead volume</li> <li>• High frequency</li> <li>• mV/V output</li> <li>• 1 % accuracy</li> <li>• CE approved 6443-105</li> </ul>

**FIGURE 1. INDUSTRIAL DISPENSING SYSTEM**



**WARRANTY/REMEDY**

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell’s standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer’s sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer’s sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

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