

Even Robots Need Assistance

For decades, industrial companies have used robots in a variety of applications. One of the most common is the paint robots used in the automotive industry. Companies prefer robots as they bring a consistent application, which reduces wasted material, increases productivity, and removes humans from potentially toxic materials.



Despite their tremendous usefulness, using robots is not without its challenges. One robot manufacturer was looking for a way to assure consistent paint spray from the arms. With the robot tasked to paint thousands of cars, consistency was a must. They needed to measure the paint line's pressure in multiple places to provide them with the necessary data, and they needed a device with long term stability. However, they needed the solution to fit into their design, as any modification to the robot arm would be too costly to consider.

The robot manufacturer reached out to a local AMETEK U.S. Gauge and PMT Products distributor for a product that would solve their problem.

U.S. Gauge Solutions

We worked with our distributor and the end-user to develop a solution with a custom version of the intrinsically safe IDT line of pressure transmitters. These transmitters read the line pressure and based on their reading, output a signal in mA or one of multiple voltage range options. Ranges are available in full vacuum up to 5000 psi, in absolute, compound, or gauge models. Accuracy is up to $\pm 0.2\%$ of full scale.

We created a custom version of the IDT that fit in the two places that the robot manufacturer needed to measure pressure. This custom sensor gave them the information they needed to create a consistent spray while also avoiding a costly redesign. And, given U.S. Gauge's reputation of producing high quality, reliable equipment, they can remain confident that their robots will continue to operate at peak performance.

Do you have a unique set-up that needs a special solution?
Contact our application specialist to discuss the solution we
have for you!



U.S. Gauge Intrinsically Safe IRT