

SUCCESS STORY

Tier 1 automotive supplier dramatically reduces sensor replacement and installation costs by switching to Omron E2EW Series

Key Benefits

1

Unique spatter-resistant coating extends sensor lifespan. Omron's patent-pending coating on the E2EW Series metal face proximity sensors keeps the sensors going strong in harsh weld environments.

2

Long sensing distance further protects against damage from weld environments.

The E2EW 4x range lets the sensor be placed farther away from welding area, resulting in less spatter buildup overall.

3

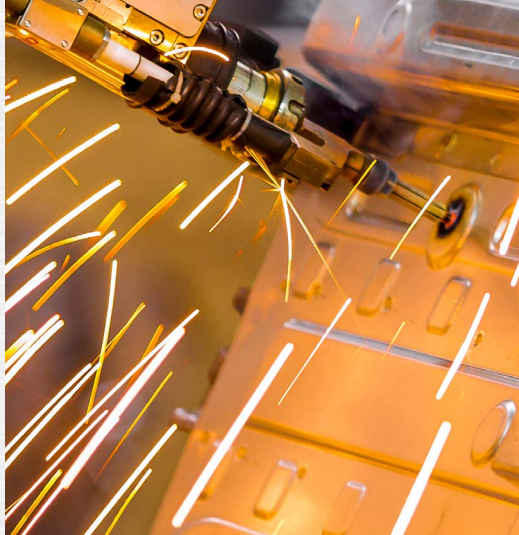
Weld field immunity results in significant cost and time savings. With Omron sensors, the customer has reduced the number of sensors purchased by 67% and saved hundreds of maintenance hours in a year.

At a Glance

A global leader in automotive seating was looking to upgrade the welding machines at its Mexico location with sensors that would perform well in a harsh arc welding environment. The facility has 45 machines that weld metal car seats structures, and sensors are a crucial component of this process, with each machine having around 15 sensors.

The heat and byproducts of welding are liable to damage any sensor that is not purpose-built to withstand such pressures. For this reason, the Tier 1 automotive supplier turned to Omron for a new set of sensors that could help the company save money over the long term.

The resulting sensor upgrade significantly reduced the number of sensors replaced per year, saving hundreds of maintenance hours annually.



What makes the Omron E2EW Series unique

Omron's E2EW Series provides stable detection over long distances for both ferrous and non-ferrous metals, which reduces target contact for both iron and aluminum detection. E2EW sensors maintain long-distance Factor 1 detection even in harsh environments thanks weld field immunity and weld slag resistance, and they communicate real-time condition changes via IO-Link.

The E2EW specifications match that of the sensors that the customer had previously been using, but Omron takes things a step further by following a careful process in applying a unique spatter-resistant coating. This coating is the large contributor to the significant increase in sensor lifetime. In addition, the E2EW 4x range lets the sensor be placed farther away from welding area, resulting in less spatter buildup overall.

The Tier 1 supplier is using the following products from the E2EW sensor line:

- E2EW-X1B1T18-M1
- E2EW-QX7B1T12-M1
- E2EW-QX22B1T30-M1

The cost of non-spatter-resistant sensors

Prior to investing in Omron sensors, the company was using sensors that only lasted around a month. The constant replacement of these sensors was leading to exorbitant costs in both money and time, since the company needed to budget extra for frequent restocking, shutdowns, and maintenance work.

When the costs became untenable, the automotive seating manufacturer decided to invest in Omron's E2EW Series weld field immune metal faced proximity sensors, which are spatter-resistant.

Cost savings are clear, even just six months in

After replacing all competitor proximity sensors with the Omron E2EW Series, the customer did not need to wait long before the benefits started to crystallize. At the six-month mark, the automotive manufacture was already experiencing a whole new level of performance thanks to the extended lifespan of each sensor. No longer needing to change the setup every month, the manufacturer has experienced a sharp productivity increase.

Omron's patent-pending process of adhering the spatter-resistant coating on the sensor allows the customer's maintenance workers to clean the sensors much less often, which helps them save time in each welding cycle. The E2EW Series has also reduced the number of sensors that the automotive supplier needs to purchase or replace annually by 67%. The sensors' IO-Link functionality minimizes the risk of machines shutdowns.

To get a clear picture of just how much cost savings the Omron sensors have provided, we can look at the actual numbers. Last year, the automotive supplier purchased 4050 sensors when they were using the competitor technology. This year, using the Omron E2EW, they purchased just 1375. The company spends about 15 minutes in replacing each sensor, so this means that replacing 4050 sensors during the year creates 1,012.5 hours of lost production delay and wasted maintenance time. With Omron sensors, the time spent on sensor replacement per year is just 344 hours.

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