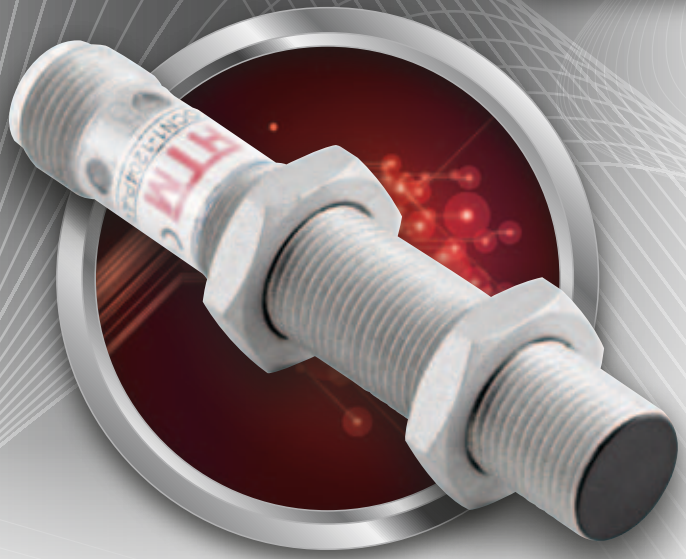
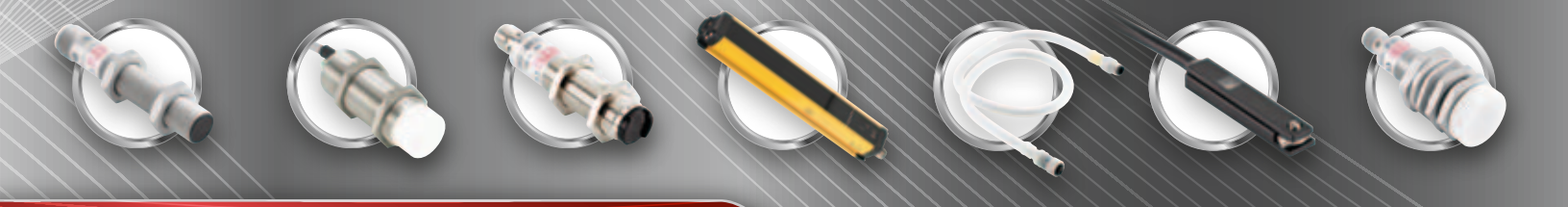


HTM™
SENSORS

White Paper

Eliminating
Unplanned Production Downtime
Instances Due to Replacement of M12 Proximity Sensors in Robotic Mig Welding Cell



HTM™ SENSORS

Eliminating Unplanned Production Downtime Instances
Due to Replacement of M12 Proximity Sensors in Robotic Mig Welding Cell

Continuous Improvement Opportunity:

In discussions with the Maintenance Team, it was identified that a large number M12 steelface proximity sensors are being replaced in one application on production cell RW009.

Cell RW009 is a robotic mig-welding cell that generates heat, weld spatter and the opportunity for impact damage. Currently, German, M12 steel face proximity sensors were being replaced in one application on this production cell **every 2 weeks**, accounting for **roughly half of the M12 steel face sensors replaced last year**.

HTM performed an audit on these cells to determine which strategy will best eliminate costs and downtime related instances to this sensor application.

Continuous Improvement Proposal:

1) To install HTM Sensors Ultra High Temperature Titanium MetalHead™ Proximity Sensor

- **Harsh Duty Sensors for Welding Environments**
- **One-piece Titanium Face and Body Construction**
- **Black Spatterguard™ Coating for Weld Spatter Resistance**
- **120 ºC Rated for Hot Weld Cells**
- **Extended Range for Reliable Detection**
- **Weld Field Immune Circuitry**

HTM™ SENSORS

Eliminating Unplanned Production Downtime Instances
Due to Replacement of M12 Proximity Sensors in Robotic Mig Welding Cell

Continuous Improvement Implementation:

On February 19th, a sample of the HTM Ultra High Temperature Titanium MetalHead™ Proximity Sensor was installed in this harsh application **(Part Number: ECS1-1204P-ARU4-PTFE-120C-WFI-TC4)**. This sensor is designed to stand up to extreme welding heat while resisting weld spatter build up. The one-piece titanium body and face enables the sensor to stand up to impact and abuse.

Result:

After 16 weeks, the sample sensor is still functioning to specifications. These preliminary results represent **8X the expected lifespan of the previous sensor**. At this point in the study, switching to the Ultra High Temperature Titanium MetalHead™ Proximity Sensor represents a **projected annual purchasing savings** for this one sensor application **of $12,750 and the elimination of 108 unplanned downtime instances.**

$12,750
ESTIMATED ANNUAL SAVINGS

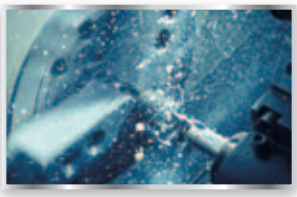
8X
THE EXPECTED LIFESPAN OF THE PREVIOUS SENSOR

ELIMINATION OF
108
UNPLANNED PRODUCTION DOWNTIME INSTANCES

PROXWORX™

COST REDUCTION VENDING

DOWNTIME REDUCTION VENDING SYSTEM



TOTAL COST SAVINGS WITH CONSIGNMENT SERVICE

- VENDOR MANAGED INVENTORY
- CONSIGNMENT STOCK
- CONTINUOUS IMPROVEMENT DATA
- AUTOMATED USAGE MONITORING

HTM SENSORS

In the USA: 1889 Maryland Ave., Niagara Falls, NY 14305
In Canada: 3419 Mainway, Burlington, ON L7M 1A9

Toll Free: 1-800-644-1756

For technical support, or information about the Application, Selection, Installation and Protection of sensor products:
support@htmsensors.com

For customer service, or information about new and existing orders, shipment tracking, and product feedback:
service@htmsensors.com

For sales, or for volume pricing, distribution enquiries, product samples and on-site demonstrations:
sales@htmsensors.com