“ACCURATE AND RELIABLE” DESCRIBES ASC INFRARED AND LASER-BASED SENSORS AND SYSTEMS

FOR:
- Tracking
- Edge Position
- Distance
- Length
- Width
- Thickness
- Speed
- Level
- Temperature

Precision Steel Mill Performance
PRESENTATION OF THE COMPANY

American Sensors was founded in 1993 as a Pittsburgh based manufacturer of sensors and systems technologies specifically targeting the unique demands of the Metals Industries.

Our sensors are installed in Melt Shops, Continuous Casters, Hot Rolling Mills, Plate Mills, Cold Mills, Pickle Lines, Galvanizing lines, and other facilities around the world. Our expertise lies in sensors that can be used to detect and measure steel and other metals products without contacting the material.

To do this we have applied Infrared, Laser, Magnetic, Microwave and other technologies to the harsh environments encountered in the typical mill environment. Extremes of temperature, steam, smoke, dirt, and chemicals are part of the normal environment of our sensors. Our years of experience have helped to create sensors that will operate reliably and precisely for many years in the world's worst environments!

ASC sensors are mounted in mill-duty, cast aluminium enclosures with standard water-cooling and positive pressure air purging, 2-axis adjustable base and quick-disconnect plug.

Hot Metal Detectors & Infrared Scanners

Laser Meters & Optical Barriers

Magnetic Switches & Inductors

Positive Pressure Air Purge

Quick-Disconnect Plug

3-Axis Adjustable Base

Water/Air Cooling

Mill-Duty, Cast Aluminium Housing

SI-3002

SI-3107-A50

SI-3009

SI-3107-A36
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<th>PRODUCT</th>
<th>APPLICATIONS</th>
<th>FEATURES</th>
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<tr>
<td>HMD Series - Infrared Hot Metal Detectors</td>
<td>Tracking Positioning Cut-to-Length</td>
<td>Detection from 150°C Preventive Alarms Sensitivity / Threshold Adjustments Laser Positioning Fiber Optic / Reimaging Lens option</td>
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<tr>
<td>LM Series - Laser Meters</td>
<td>Dimensional Reading Distance Reading Hot or Cold Target Positioning Through flames in reheating furnace</td>
<td>From ±5mm accuracy Analog &amp; Serial Outputs Reading up to 500m Target T° up to 3000°C</td>
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<tr>
<td>MWS Series - Microwave Meters</td>
<td>Molten Metal Level, Blast Furnace Burden, EAF, Torpedo Car, Ladle, Tundish, Mold Level</td>
<td>Measures accurately through Steam, Dust, and Smoke Uses Remote Electronics Optional Air-cooled Antenna</td>
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<tr>
<td>OB/CW Series - Laser &amp; Microwave Optical Barriers</td>
<td>Tracking Positioning Hot &amp; Cold Detection</td>
<td>Through-beam Retro-reflective Sensitivity Selection</td>
</tr>
<tr>
<td>PM Series - Pyrometers</td>
<td>Temperature Reading Emissivity Reading</td>
<td>0° to 3000° C One, Two-color or Multiple wavelength ± 5° (15°F) Absolute Accuracy</td>
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<tr>
<td>LSV Series – Laser Doppler Velocimeter</td>
<td>Speed Measurement Length Measurement Mass Flow Calculation</td>
<td>Zero Speed &amp; Automatic Direction Detection 0.05% Accuracy / Reading Standoff Distance up to 2m</td>
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<tr>
<td>SI Series – Magnetic &amp; Inductive Sensors</td>
<td>Non-contact limit switching for cranes, rail-mounted vehicles, mine shaft elevators, and moving arms</td>
<td>Totally Enclosed Operating Distance 60mm &amp; 180mm No Power Supply needed Manual or Automatic Reset</td>
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<tr>
<td>Weld Hole Detection System</td>
<td>Detect Weld Holes Cold Strip Processing</td>
<td>Captures Single Events as short as 100 µs 40 ms Output Pulse upon Detection Wider Field of View Typically covers Speeds from 0.2m to 20m/sec</td>
</tr>
<tr>
<td>Accessories – Sensor Cable</td>
<td>For all ASC sensors and any sensor utilizing a Model A Harting Connector</td>
<td>Metal braid shielded Teflon cable Custom lengths available, standard 2m Water-tight seals for Male / Female Connectors</td>
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</table>
HMD SERIES – Infrared Hot Metal Detectors

HMD-500 Scanning HMD

HMD-3000 Point & Optical Fiber HMD

IS SERIES – Infrared Positioning Sensors:

Loop Control

Edges Positioning, Centering & Width of Hot Product

Radiant Bar

Edges Positioning & Centering – Cold Product and Weld Hole Detection

Edges Positioning, Speed Measurement & Cut-to-Length
LM SERIES – Laser Meters

Billet, Bloom & Slab Cut-to-Length

Slab Positioning & Length

OB SERIES – Laser Optical Barriers

D = L cos α

Loop Control in a Pit

Retro-reflective Laser Barrier

PM SERIES - Pyrometers

200°C – 2500°C
392°F – 4532°F

Scanning Pyrometer Temperature Profile

WHD-3000 – Weld Hole Detection System

1-4 m
21 deg
42 mm
Strip center