



## INDUSTRIAL SENSORS & MEASUREMENT SYSTEMS



*MODULOC Control Systems* has had a history since 1981 of supplying optical sensors, detectors and measurement systems to the Steel, Aluminum and Metals Industries.

Our success is attributed to our continual policy of providing the latest in technology to meet the changing requirements of Industry.

*MODULOC Control Systems* represents the whole solution for detection and measurement for mill & process automation as well as for material handling applications in and around the plant.

### Sensors: Engineered for Heavy Industry

- **PF1000 Pathfinder Digital Hot Metal Detector (HMD) Scanner** - Latest technology for precise high speed monitoring of hot product regardless of size, profile or temperature. Not effected by changes in background IR as incorporates automatic background analysis. Ideal for difficult and critical detection needs such as furnace exit, run-out tables and cut to length. Optional RS422/RS485 Serial Interface now available.
- **Series 85100 Digital Hot Metal Detector** - Self-Contained "All-in-One" design. 80-240 VAC or 24VDC Supply, programmable I.R. trip levels and response times to ensure precise operation in all areas, Control Relay, Reed Relay, PNP & NPN transistor outputs, Unique LED Bar display of IR Input Signal.
- **Series 95100 Hot Metal Detector** Remote design, 110VAC or 24VDC supply, switch selectable I.R. trip levels and response times to ensure precise operation in all areas, Relay and selectable PNP or NPN transistor output. Unique LED Bar Display of IR Input Signal. Utilizing fiber optic leads & remote interchangeable stainless steel optic lenses rated at 180°C or optional 400°C ambient.
- **DTF6000 Trailfinder Digital Optical Position Scanner** - Digital scanner with background suppression for continuous precise monitoring of the relative position of hot bar.
- **Series 2000 Extended Range Inductive Proximity Sensor** - Specifically for installations in the harshest of industrial environments with ranges from 20mm to 200mm. Available in a various shapes and sizes to fit a variety of applications..
- **Series 4000 Mill Duty Photo-Switch** - Ideal for monitoring Hot or Cold Product. Remote mounted utilizing fiber optic leads & remote stainless steel optic lenses rated at 180°C or optional 400°C ambient.
- **Duo-Prox Inductive Proximity Sensor** - Tough Rynite glass filled construction. Unique EURO-NORM/ DIN mounting bracket allows two axis adjustment.
- **Series 300 Industrial Metal Detector** - Ideal for locating metal contaminate on Bulk Conveyor Belts and varying profile bar or beam on roller beds.
- **Model 8207 Weld Hole Detector** - Background suppressed robust sensor for detection of weld holes in passing metal strip.
- **VLM250** - Velocity and Length Sensor provides economic precise measurement without contact. Regardless of the material nature & surface, it determines length & speed for interfacing with automation systems.



Series 2000 Proximity Sensor



Series 4000 Photo-Switch



Duo-Prox Proximity Sensor



VLM250 Velocity and Length Sensor

### MODULOC Technology - The Total Sensor Solution

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## Measurement Systems: Laser Technology

- **Laser Measurement Systems** for laser measurement of length, width or positioning of hot or cold product as well as automated positioning of cranes, mobile equipment and machinery.
- **ELDP & MDHD Laser Distance Meters** - Advanced Class I Laser Technology providing precise distance measurement. Operates via a unique pulsed time-of-flight (TOF) measurement technique and measure distances over working ranges of up to 1200 meters according to reflection surface. Can be used with a reflector or directly off of product. Four models available including High temperature model for measurement off of red hot metal up to 1400°C. Various Secondary Environmental Enclosures are available for additional protection for indoor, outdoor, crane mounted and elevated temperature applications.
- **LDCP-4000 Crane LDM Interface Display** - Powerful CPU engineered to provide convenient operation and communication between the ELDP family of Digital Laser Distance Meters and other digital inputs on an overhead crane and the crane operator as well as a host computer. Displays to the operator the position of up to 3 crane motions.
- **LD-6001 Laser Length/Width Gauge** - Operating off both cold or hot product, even inside the furnace, this Gauge is well suited for determining the size and position of steel product such as slabs, blooms or billet in the furnace area & other difficult areas in the Rolling Mill. Displays measured distances from each LDM and calculates the widths, lengths or centerline deviations.
- **LT2000 Laser Distance Meters** - Low cost visible red Class II laser for highly accurate distance measurement. Ranges up to 150 meters according to reflection surface. Can be used directly off of product, ideal for product width and coil diameter determination. High temperature model that can measure off of red hot metal up to 1200°C. Various Enclosure Options are available including, IP65, IP66, NEMA4X, Explosion Proof, Robust IP66 with Air Purge/Cooling and Robust IP66 Water Cooled with Air Purge.
- **BR22 Laser Interface** - Powerful CPU provides a localized LCD display of distance measurement and programming of the Laser Distance Meters operational parameters via keypad operation. Several models available, for operation of 1 or 2 lasers, providing product length, thickness or width measurement, and for positioning control. For use with the ELDP/MDHD or LT2000 family of Digital LDM's.
- **MLS, MLC & MLB Laser Triangulation Meters** - precise measurement of product thickness or diameter. Nineteen models available with measuring ranges of 100mm to 4M, with resolutions of 0.002mm to 0.5mm. Two High Temperature models also available for use with red hot metal up to 1200°C (2192°F) and molten metal up to 1800°C (3272°F)
- **LTM2D Laser / Profile Scanner** - optical non-contact precision measurement in two dimensions providing profile-measurement in any kind of industrial application. Five models available with measuring ranges of 100mm to 2250mm, with resolutions of .01mm to 2mm.
- **VR504 Barrier Lasers** - Powerful and safe Class I Laser with 500 meter range for penetrating the heaviest steam and furnace flames.
- **LT200M Retro-Reflect Lasers** - Powerful visible red Class II Laser with a 20M range off of a reflector, enabling precise detection of product in difficult areas. Fast response time less than 1 msec. Robust IP66 Enclosure with Air Purge/Cooling and Optional Water Cooling with Air Purge.



MDHD Laser Distance Meters



MDHD Laser Secondary Enclosures



LT2000-ST



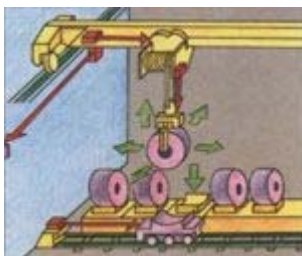
VR504



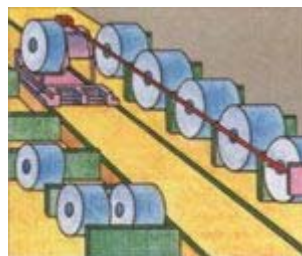
MLS Laser Triangulation Meter



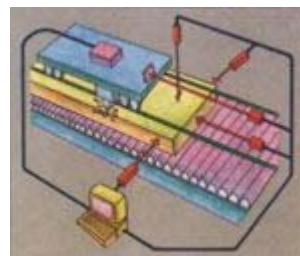
MLC Laser Triangulation Meter



X-Y-Z Positioning of Cranes



Transfer Car Positioning



Cut to length / measurement

## MODULOC Technology - The Total Sensor Solution

**MODULOC**  
Control Systems

Your Local Sales Representative:

We reserve the right to alter specifications without prior notice. Specifications without tolerances are typical values.



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