

# **MODULOC** Control Systems



## **SERIES 310 ENHANCED RANGE PULSE INDUCTION DETECTOR**

### **DETECTS INDIVIDUAL BARS AND SECTIONS ACROSS WIDE ROLLER TABLES**

- **Can mount in confined space within protective steel enclosure**
- **Glass fiber coil withstands bar at 300 deg C passing over it**
- **Detects bar and section at 120 mm range regardless of size**
- **Narrow profiled coil built-to-order of up to 4 mtrs length**
- **Cooled PTFE Coil for high temperature use**
- **Controller mounts 30 mtrs from coil**

These Series 310 Metal Detectors operate by generating a pulsed flux and monitoring its rate of collapse when the metal bar passes overhead.

This method of detection provides 3 times the range of inductive Sensors. In addition the coils may mount closely surrounded by metalwork or secured within protective steel enclosure. Furthermore, as the coil windings are PTFE insulated can be used where the bar relatively hot.

The detector coils are provided in profiled glass fiber cases or PTFE coil plates with optional PTFE flying leads for high temperature areas. Stainless loop detector coils available for cooling beams. Changes in ambient do not influence operating range.

These Detectors are the ideal solution where the user needs to detect individual bars across wide roller tables where Inductive sensors are in adequate. Also well suited for cooling beds as the remote coils can be provide in PTFE Coil plates supported in protective metal frame with additional water cooling radiator as required.



**Narrow Profiled  
Glass Fiber Coil**

#### **Controller Features:**

- **Auto Zero button provided**
- **Volt free relay output**
- **Voltmeter shows zero drift**
- 

#### **Detector Coil Features:**

- **Mount close within metalwork**
- **Up to 40 mtrs of coax connection**
- **Not effected by changing ambient**
- **Mill contaminate falls off profile**
- **Length made to order**



**Series 300 Controller**

Isolating plastic mounting  
plate not shown

**MODULOC CONTROLS - BUILT TO LAST - MODULOC CONTROLS - BUILT TO LAST**

**MODULOC Control Systems Ltd. Head Office**  
Wheathamstead, Hertfordshire, AL4 8SB United Kingdom  
Phone: +44 (0)845 8736501 FAX: +44 (0)1582 831980  
E-Mail: sales@moduloc-intl.com Website: www.moduloc-intl.com

**MODULOC Control Systems, Inc.**  
500 Garden City Drive - Suite 2B, Monroeville, PA 15146 USA  
Phone: 412-824-1260 FAX: 412-824-8890  
E-Mail: sales@moduloc-usa.com Website: www.moduloc-usa.com

## DETECTOR COIL CONFIGURATIONS

There are three types of detector coil configurations available which in turn are manufactured in various sizes to accommodate client's specific requirements.

Coils may be mounted into roller table framework relatively close to surrounding metalwork or rollers.

For those areas where high ambient is expected (furnace entry tables and cooling beds) both PTFE search coils or all metal stainless loops are available. Both of these may be used with or without cooling.

## PERFORMANCE GUIDELINES

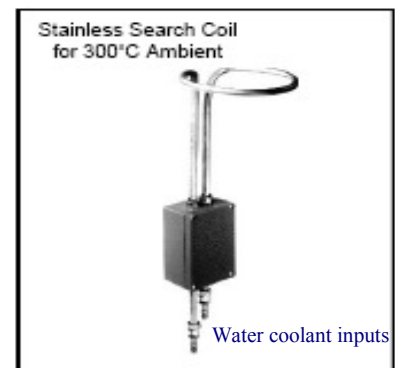
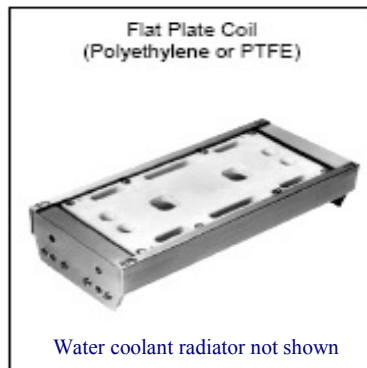
Sensitivity levels are a factor of coil length and the size and profile of the product. Quotations are normally put forward which specify expected sensitivity according to the client's production output.

Typical Sensitivities over 2 mtr long coil - Detect 100mm Steel Beam and bar at 150mm

PTFE Coil Plates mounted within supporting metalwork and where requested with water coolant radiator attached. Intended for detection of bar below 300 deg C

Single loop stainless coils intended for detection of bar at or slightly above 300 deg C. at 100 mm. Steel bar should not be smaller than the detector loop.

### Optional Remote Coils for High Temperature use



## SERIES 300 CONTROLLER SPECIFICATIONS

Housing: Painted aluminium, IP65 sealed enclosure  
200mm H X 120mm W X 60mm H.  
Provided on isolating plastic mounting plate

Electrical: 110 or 240 50Hz supply with 5 Amp  
30VDC/250VAC c/o relay output .  
Internal terminal strip via two cable glands

Switches: Reset button

Indicators: Power and Function Indicator with signal monitoring meter

Coil cable: Low-loss UR70 or OR76 coaxial. Armored silicone or PTFE cable option of 2 mtrs.  
Standard coaxial cable 5 m trs. Local extension to 30 mtrs possible.

Adjusters Zero and gain adjustment.

**MODULOC CONTROLS - BUILT TO LAST - MODULOC CONTROLS - BUILT TO LAST**

**MODULOC**  
Control Systems

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

Your Local Sales Representative:



Bulletin MC-S300-09-01  
January 2009