Mould Level Measurement System
AGELLIS EMLI Ms

Mould Level Measurement
Suspended Sensor

Monitors metal level using a sensor suspended in a continuous casting mould in order to maintain accuracy and improve quality in the casting process.

System Capabilities

The AGELLIS EMLI Ms suspended sensor constantly monitors steel level in the mould during casting and provides outputs to control the flow to maintain desired operating levels.

High and low levels are all indicated and displayed as required.

The suspended sensor unit can be mounted on an automatic or manual arm in order to access the correct position in the mould.

The AGELLIS EMLI sensor is designed to operate in the extreme conditions. It has high temperature covers and is designed for cooling.

Unlike radioactive systems the electromagnetic (eddy current) technology means that the EMLI Ms system gives the operator true steel level irrespective of the amount of mould powder on the steel surface.

The Management Unit is capable of running multiple units of the same or different EMLI system types. This enables the user to expand the system to run extra mould systems or add slag detection or tundish level measurement systems.

All EMLI system types have compatible parts, which means stocking spares is both simple and cost effective.
Technical Information

AGELLIS EMLI Ms

System Overview

Technical Information

- **Power Supply:** 90 - 230 VAC 50/60 Hz max 500 W
- **Frequency:** 35 mm sensor normally 12kHz, 90 mm sensor normally 1120Hz
- **Sensitivity:** 0.2%
- **Mounting specification:** Designed to endure the industrial environment over a mould
- **Cooling:** Sensor – air/nitrogen cooling required
  - Main Electronics Unit – ambient temp. range up to +55°C
- **Safety standard:** Complies with known safety standards

Principles of Operation

Within the suspended sensor unit a transmitter coil is supplied with a current of a selected frequency that in turn induces a corresponding voltage of the same frequency in receiver coils also within the unit. These sensor coils are balanced when in an empty mould.

As the mould is filled the metal moves within the range of the sensor and the balance between the coils is changed in proportion to the metal proximity. The calibrated signal output is linearised to denote the actual metal level in the mould.

Agellis follows a policy of continual improvement of design and we must therefore reserve the right to supply equipment differing in detail from that described herein.

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