Tundish Level Measurement
Tundish Mounted Sensors

Monitors true metal level using sensors mounted in continuous casting tundishes in order to maintain correct steel pressure head, improve quality in the casting process and control drain level to optimize yield.

The AGELLIS EMLI T unit constantly monitors the true steel level in the tundish during casting and provides outputs to control the flow from the ladle to maintain desired operating levels.

High and low levels are all indicated and displayed as required. The system also provides drain level for controlled emptying of steel from the tundish.

The AGELLIS EMLI sensors and cabling are customized to fit the tundish and the caster area.

The sensors are designed for the extreme conditions and are mounted in a protected position against the inside of the tundish wall.

The two sensor configuration means only a single sensor needs replacement if there is a breakage, thus reducing maintenance costs and making the EMLI T cost effective to run.

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 tundish systems or add slag detection or mould level measurement systems.

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

System Overview

Sensors
Pre-Amp Unit
Control Unit
Management Unit
Cabinet
(Can be customized)

Technical Information

Power Supply: 90 - 230 VAC 50/60 Hz max 500 W
Frequency: Normally 140 Hz
Sensitivity: 0,2%
Mounting specification: Designed to endure the industrial environment mounted in a tundish
Cooling: Sensor – no cooling required
Main Electronics Unit – ambient temp. range up to +55°C
Safety standard: Complies with known safety standards

Principles of Operation

A transmitter sensor is supplied with a current of a selected frequency that in turn induces a corresponding voltage of the same frequency in the receiver sensor by electromagnetic coupling. As the metal in the tundish moves so the electromagnetic coupling changes the amplitude of the induced receiver sensor voltage. The calibrated signal output is linearised to denote the actual metal level in the tundish.

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.