Ladle Slag Detection System
AGELLIS pt™ EMLI SIL

Slag Detection at Ladle Teeming

Continuous monitoring of metal teeming ladles to rapidly detect the onset of slag in the stream, control slag carryover and improve quality in the casting process.

System Capabilities

The AGELLIS pt™ EMLI SIL unit constantly monitors steel flow during ladle teeming at the caster and provides alarm outputs at the onset of slag in the stream. These outputs can be used to immediately end teeming by gate closure, while also giving visual and audible alarms.

The AGELLIS EMLI sensors/cabling are customized to fit any ladle and sliding-gate arrangement with only minimal modification to existing equipment.
Technical Information
AGELLIS pt™ EMLI SIL

System Overview

Preamplifier Box

Main Electronic Unit
Cabinet
(Can be customized)

Technical Information

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Principles of Operation

A transmitter sensor is supplied with a current of a selected frequency which creates an electromagnetic field that in turn induces a corresponding voltage of the same frequency in the receiver sensor. When a 100% steel flow exists between the transmitter and receiver there is an induced voltage (a) at the receiver. As soon as the flow becomes a steel/slag mix, the induced voltage immediately increases (b).

Electrical: 90 - 230 VAC 50/60 Hz max 500 W
Frequency: Normally 280Hz
Sensitivity: 0,2%
Alarm level: Adjustable
Mounting specification: Designed to endure the industrial environment mounted on a ladle
Cooling: Sensors – no cooling required
Main Electronics Unit – ambient temp. range up to +55°C
Safety standard: Complies with known safety standards

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Your local representative:

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