



ergolines
INNOVATION PARTNER

ILD – MOULD LEVEL MEASURING AND CONTROL SYSTEMS FOR BILLETS AND BLOOMS.

The use of electromagnetic sensors to measure the level of steel in continuous casting is common practice throughout the world. The ILD sensor is an inductive sensor used to control the level in billet and bloom casts.



HOW IT WORKS

The operating principle of the ILD sensor is based on eddy currents.

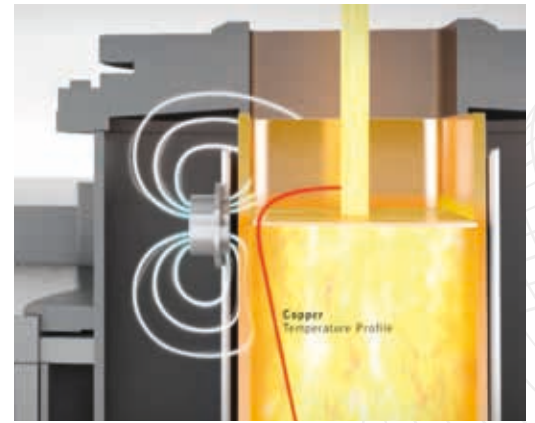
STEP 01

An alternating magnetic field is generated by the sensor towards the external wall of the crystalliser, generating eddy currents in the copper. In turn, these eddy currents generate a response electromagnetic field from the copper wall, which is detected by the sensor.



STEP 02

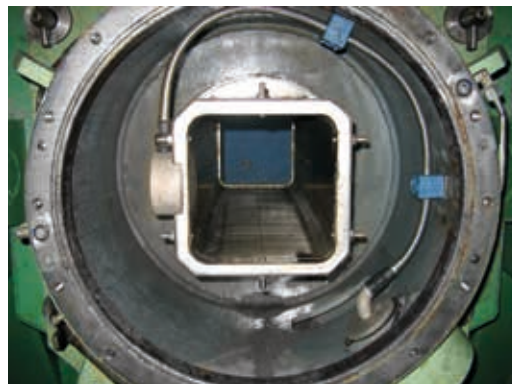
The eddy current induced depends on the resistivity of the copper, which in turn depends on the temperature curve generated by the level of liquid steel. The signal measured by the sensor is then processed to allow reading of the actual level of the steel.



The sensor 2x80-07 is also available for management of the automatic start function of the castings. It is made up of 2 transducers, an upper one for measuring and a lower one to detect the steel level at the start of casting and to manage the automatic start function.

INSTALLATION

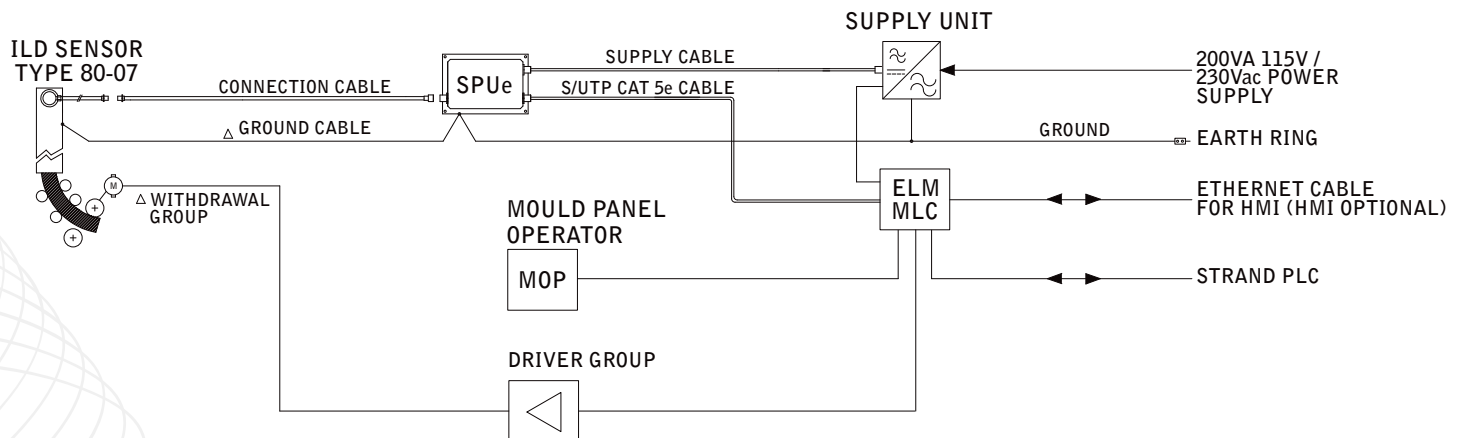
The sensor is installed inside the mould body, on the conveyer, which should be appropriately machined to house the transducer.



SYSTEM COMPONENTS

The system is made up of the following components:

- › ILD sensor (model 80-07)
- › Flexible cable, 5 or 10 m
- › Signal processing unit, which pre-processes the level signal
- › Ergolines logic unit for Mould Level Control
- › PC unit for data acquisition and analysis, data recording and graph viewing
- › Operator panel (on request).



TECHNICAL DATA

Operating frequency	< 200 Hz
Reading range	80 or 160 mm
Accuracy	± 4mm
Response time	50 msec
Also works with mould Stirrer	YES
Measurement only system available	



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