



The Capacitive Sensor GSC-1000 is used in processing lines for non-contact detection of the centre position of metallic strips. As a result of its operating principle, the sensor is not influenced by extrinsic light, fouling and magnetic fields, does not need maintenance and is non-wearing.

Fife-Tidland's patented Capacitive Sensor contributes toward a reduction in line stoppages in steel mills and improves the economic contribution of your processing line.

The sensor consists of two transmitting and one receiving electrodes which are mounted inside the sensor frame. The interpreting electronics are located a defined distance away from the sensor.

As a result of the high-frequency, alternating voltage, the two transmitting electrodes generate an electrical field between the transmitter and the receiver. Depending on the lateral strip position inside the sensor, electrical fields of different strengths are observed by the receiver. After interpretation by a demodulator and a voltage-current transducer, the sensor emits an analogue signal of 0 – 10 mA, depending on the strip position in the sensor.

Should the sensor receive strong interference signals, the interference is shown and the strip guidance is temporarily electrically blocked until the interference is cleared.

## GENERAL SPECIFICATION

**Weight:**

250 – 300 kg

**Gap:**

150 – 550 mm

**Operating temperature:**

up to 1200 °C

**Protection classification:**

IP65 (housing)

**Supply Voltage:**

+/- 12V

**Output Signal:**

0 to 10 mA

**Linearity:**

+/- 5% max. deviation

**Plane change:**

+/- 1% max. deviation

**ESD protected:**

designed to IEC 801-2

## ADVANTAGES

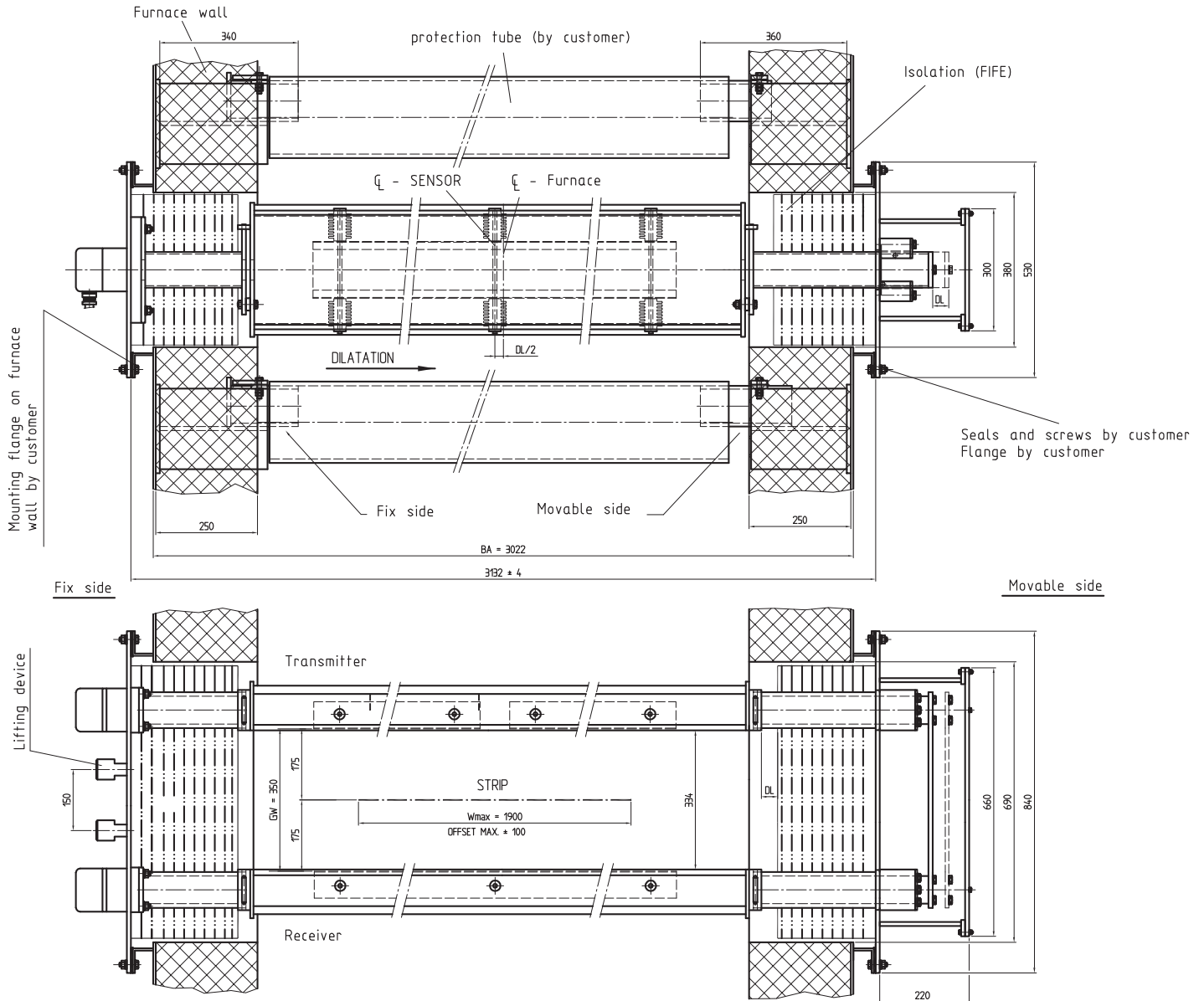
- Absolutely maintenance-free, due to no wear and tear elements
- High Operational Reliability
- Long life
- Not influenced by:
  - properties of material
  - magnetic fields, therefore usable
  - inside inductively heated furnaces
  - significant variation in temperature
  - (temperature gradients) during
  - heating and cooling of furnaces
  - extrinsic light
  - dust and grime
  - gases
  - wavy strip edges
  - strip plane changes
- Utilisation at high ambient temperatures up to 1200°C
- Measurement of extremely narrow strip possible
- Simple installation in vertical and horizontal furnaces

## HIGH TEMPERATURE CAPACITIVE SENSOR

### APPLICATIONS

- Steering units inside furnaces
- Recoiler for hot strip

### DIMENSIONS



Dimensions in mm.

# MAXCESS



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