



Hot rolling of metal

Inductive surface sensor for monitoring of material



Inductive surface sensor

Reliable monitoring of material on a roller path needs every rolling mill. The material itself or gaps shall be recognised, regardlessly of environmental factors like steam or soiling, to guarantee an efficient and undisturbed production.

A steelwork in Germany recently came up with the following situation and asked Proxitron for help: With sensors placed at different positions on a 50 m long and 800 mm wide roller path they wanted to identify the presence of steel profiles of different sizes. Due to the different profile dimensions and their undefined position, the whole widths of the roller paths need to be monitored; however they wanted to avoid working with several single sensors. The application of optical sensors was also excluded on account of possible soiling. After examination of the application on site, a surface sensor of the type IKU 281 was used. The application of a surface sensor is more efficient and more reliable than using several single sensors. The surface sensor has been developed especially for scanning without touching of rolling ways and conveyor tracks on narrow material. The surface sensor delivers, regardlessly of the position of the profile on the rolling path, a switch signal and the effort of wiring, installation and commissioning is minimised. The IKU 281 allows the monitoring

of a rolling path of 800 mm width and has a switch distance from up to 250 mm. The inductive sensor principle allows a troublefree operation even with strong soiling of sinter. The high switch distance protects the sensor against mechanical damages by oscillations of the material transported on the rolling path.

At a glance

- Monitoring of roller paths and conveyor tracks
- Recognising of metals, e.g. pipes, profiles
- High resistance to contamination
- Variations for different widths of roller paths
- Self-calibration with Proxi-Teach function by one keystroke
- Several connection variants

Technical data (IKU 281T.38 G)

- Output: PNP n.o. and PNP n.c.
- Switching distance: up to max. 250 mm
- Switching distance adjustable: yes (Proxi-Teach)
- Operating voltage: 10 -55 V DC
- Current load: 0 - 400 mA
- Ambient temperature: -25 up to 70°C

Accessory

- Rubber metal buffer MS 84