



CASE STUDY

SAMARCO MINE ROTARY FEEDER

Downtime reduced from 12 hours to 30 minutes

A Brazilian mining company transfers iron ore via rotary feeders for processing. The Rotary feeders are controlled using Profibus Cabling between a Profibus DP Remote I/O and PLC. Exposure to the outdoors and a moving equipment, the cabling would break causing costly operation downtime of up to 12 hours.

To mitigate this continual threat, an ELPRO secure industrial wireless solution was installed to monitor the flow of iron ore and maintain communications back to the control room. When maintenance was required, 30 minutes was the project downtime average.

THE PROBLEM

Regular downtime due to cable breakages caused excessive productivity and financial losses. The elimination of cabling was critical to correct the issue and implementation of a reliable and secure industrial wireless solution was the most appropriate solution.

WHY ELPRO

ELPRO wireless products support Industrial protocols that allow for ease of integration into industrial networks. High product reliability and temperature rating was critical for safety and appropriate for the application.



PROJECT FEATURES

- The ELPRO wireless solution was installed to monitor the flow of iron ore and maintain communications back to the control room
- Down time reduced from a costly 12 hours to 30 minutes
- Enabled the elimination of cabling which was critical to correct the issue and wireless was the most appropriate solution
- A saving of US\$1,380,000 with the ELPRO solution

THE RESULTS

With the ELPRO Technologies solution, Samarco eliminated the problems occurring with cables, the loss of communication, and repairs. Maintenance required time went from 12 hours to 30 minutes.

The ELPRO solution allowed for an average of:

- US\$30 x .5 hours x 1,000 x 4
- US\$60,000 for maintenance over the cabling solution
- Downtime costs of 12 hours x US\$30 x 1,000
- US\$360,000 per machine x 4 US\$1,440,000

This equated to a total saving of US\$1,380,000 with the ELPRO solution.



35+ years and still transmitting!