

Short description

Bearing Clearance Monitoring



Smart components for mining applications

Because there is no time for downtime, Liebherr developed an integrated wear measurement system for slewing bearings (Bearing Clearance Monitoring, BCM). **Safety, downtime and cost efficiency** are the most important factors here, which you optimise by remotely diagnosing the wear condition of your bearings. Benefit from Liebherr's digitalised measurement and save up to 75% of the costs per measurement.

Your advantages at a glance



Safety: Liebherr BCM guarantees the highest safety of personnel due to remote performance of measurement, whereas with conventional measurement methods, staff are exposed to a certain risk when carrying out measurements on the machine.



Precision and flexibility: Within the BCM, the integrated sensor system guarantees precision as well as independent and flexible usage. This means you are no longer dependent on external measuring devices.



Cost efficiency: Up to 75% cost savings with a digitalised measurement system and individual payment models, whereas with the manual measurement method, downtime and costs increase proportionally with each measurement.

LIEBHERR

Short description

BCM – for safe and remote monitoring of slewing bearings

Maximum safety for your personnel

The Liebherr app for monitoring slewing bearings helps you make maintenance and excavator operation easier and safer. To this day, manual measurement still requires your personnel to go into the danger zone of your equipment. This is the only way to manually attach and read the dial gauges in the area of the main load zones. However, this not only means danger for your personnel, it means you have to put up with long downtimes and you are dependent on the organisation of qualified services.

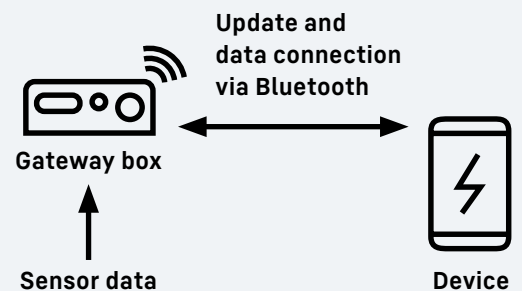
The Liebherr app makes this work much easier for you: during the measurement, no personnel are directly at the device in the danger zone. Your downtimes are reduced by the integrated system and you remain independent in your measurement times as well as from external services.

Smart, integrated, remote – the Liebherr solution

The processed data from the slewing bearing is sent to Liebherr-Telematics and is visualised by the new Liebherr app for slewing bearing monitoring. The system can be used autonomously even in regions with no data connection. Thanks to the data export, you can manage the wear status of your complete fleet.



Available for all mining-excavators from 200 tons.



Short description

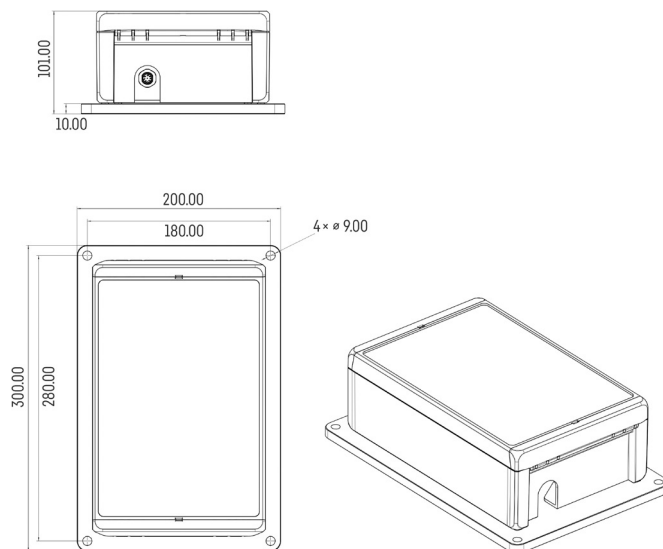
Technical data

System information:

- Gateway box to be installed on top of excavator
- Sensor connection box and sensors are pre-assembled
- Update via Bluetooth
- Data storage in the gateway box
- Data download to mobile device
- Visualisation of wear data via app

Gateway box

	Dimensions
Mounting plate:	200 × 300 × 10 mm
Mounting holes:	4 × ∅ 9 mm (through hole for M8)
Weight:	1.5 kg



Power supply

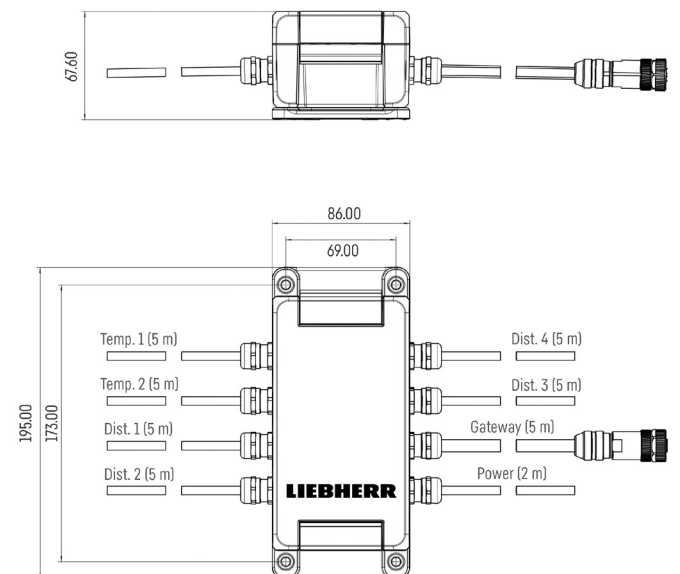
	Specification
Gateway	
Supply voltage:	24 V DC
Sensor connection box	
Supply voltage:	24 V DC (connection machine power supply)

Interfaces

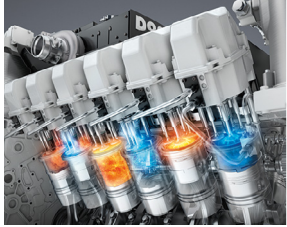
	Specification
Bluetooth	
Standard:	5.0
Data rates:	2 Mbps, 1 Mbps, 500 Kbps, 125 Kbps
Reach:	Up to 200 m (outside area)

Sensor connection box

	Dimensions
Sensor connection box:	195 × 86 × 68 mm
Mounting holes:	4 × ∅ 5.5 mm
Weight:	4 kg



Components



Diesel engines



Fuel injection systems



Axial piston hydraulics



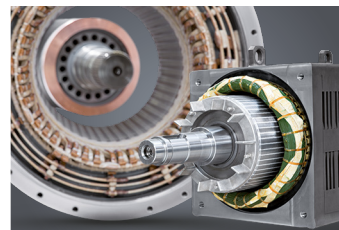
Hydraulic cylinders



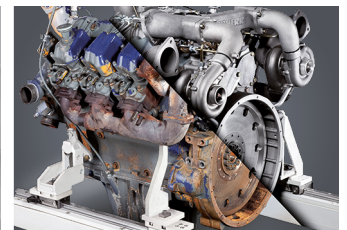
Slewing bearings



Gearboxes and winches



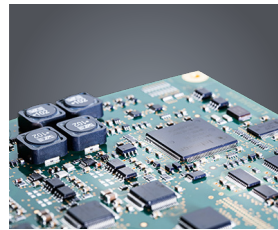
Electric machines



Remanufacturing



Human-machine interfaces and gateways



Control electronics and sensor technology



Power electronics



Control cabinets



Software

From A to Z – the component product segment of the Liebherr Group offers a broad range of solutions in the areas of mechanical, hydraulic, electric and electronic drive system and control technology. The efficient components and systems are produced at ten production sites worldwide to the highest quality standards. The central point of contact for all product lines are available to our customers at Liebherr-Component Technologies AG and the regional sales and distribution branches.

Liebherr is your partner for joint success: from the product idea to its development, production and commissioning right through to customer service solutions like remanufacturing.

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