



KNOW YOUR WEAR





OPTIWEAR Sensors

NON-CONDUCTIVE

The industry's only non-conductive wear sensor, a game-changer for slurry and wet environments. Designed to deliver precise and reliable data where conductivity often distorts readings, this groundbreaking technology is essential for maintaining data integrity in mills, slurry pumps, and pipes.

HIGH RESOLUTION

Experience unmatched precision with sensors that provide up to 100 measurement intervals and a resolution as fine as 0.2mm. Tailor the solution to fit your specific needs, capturing critical and frequent data points to empower informed insights and decisions.

CONFIGURABLE SENSOR

Configurable sensor arrays allow precise placement of OPTIWEAR sensors, ensuring accurate measurement at critical points. This flexibility ensures that only relevant and targeted data is captured, enhancing the effectiveness of monitoring and analysis. Additionally, sensor placement is not restricted to predefined bolt hole locations, offering greater adaptability to specific operational needs.

EASY TO INSTALL

In most applications, OPTIWEAR sensors can be easily installed into the asset's liner through a cold-drilled 10mm diameter hole. In mills, these sensors are embedded within the mill liner, with the installation process completed at the foundry.

AGILE SENSOR PLACEMENT

Our sensor solution offers the flexibility to position OPTIWEAR sensors exactly where needed, rather than being limited to specific locations like bolt holes. This enables precise measurement at targeted points, ensuring the capture of specific and relevant data. Within a mine, critical points on each mill liner—both the lifter and the plate—can be measured simultaneously using an array of sensors, providing a comprehensive view that a single sensor or fixed placement cannot achieve.

SEAMLESS OPERATIONS

Seamless operations are ensured through the integration of our OPTIWEAR sensors, allowing real-time data collection without interrupting or disrupting ongoing processes. This enables continuous monitoring and efficiency without any downtime.



OPTIWEAR Solution



SAFETY MINDSET

Safety is non-negotiable. Our solutions are engineered to uphold the highest safety standards, minimizing risks and safeguarding both people and assets. By integrating our sensors, you create a secure and reliable environment for your operations.

LIVE REPORTING

Live reporting of sensor data provides immediate, real-time insights into operational performance. This enables operators to make informed decisions quickly, identify inefficiencies, and respond to issues as they arise, minimising downtime and optimising processes. With continuous access to current data, businesses can maintain greater control and flexibility, improving overall productivity and system reliability.

ALERTS

The ability to set automated alerts ensures continuous monitoring and early detection, offering peace of mind by reducing manual oversight. With this feature, operators can confidently “set it and forget it,” knowing that the system will notify them of critical events or changes, allowing for timely interventions without constant supervision.

INTELLIGENT INSIGHTS

The ability to optimize the process is elevated through AI machine learning, offering intelligent insights directly to operators. By integrating real-time data from sensors, equipment, and throughput material, accurate predictions can be effectively communicated and acted upon, such as live charge trajectory or the pebble rate within a mill.

PARTNERSHIP FOCUSED

Our approach is centered on partnership, working closely with you to unlock maximum value and deliver tailored solutions that meet your specific needs. Our commitment is to work alongside you, ensuring that our solutions evolve with your needs and continue to provide enduring benefits.

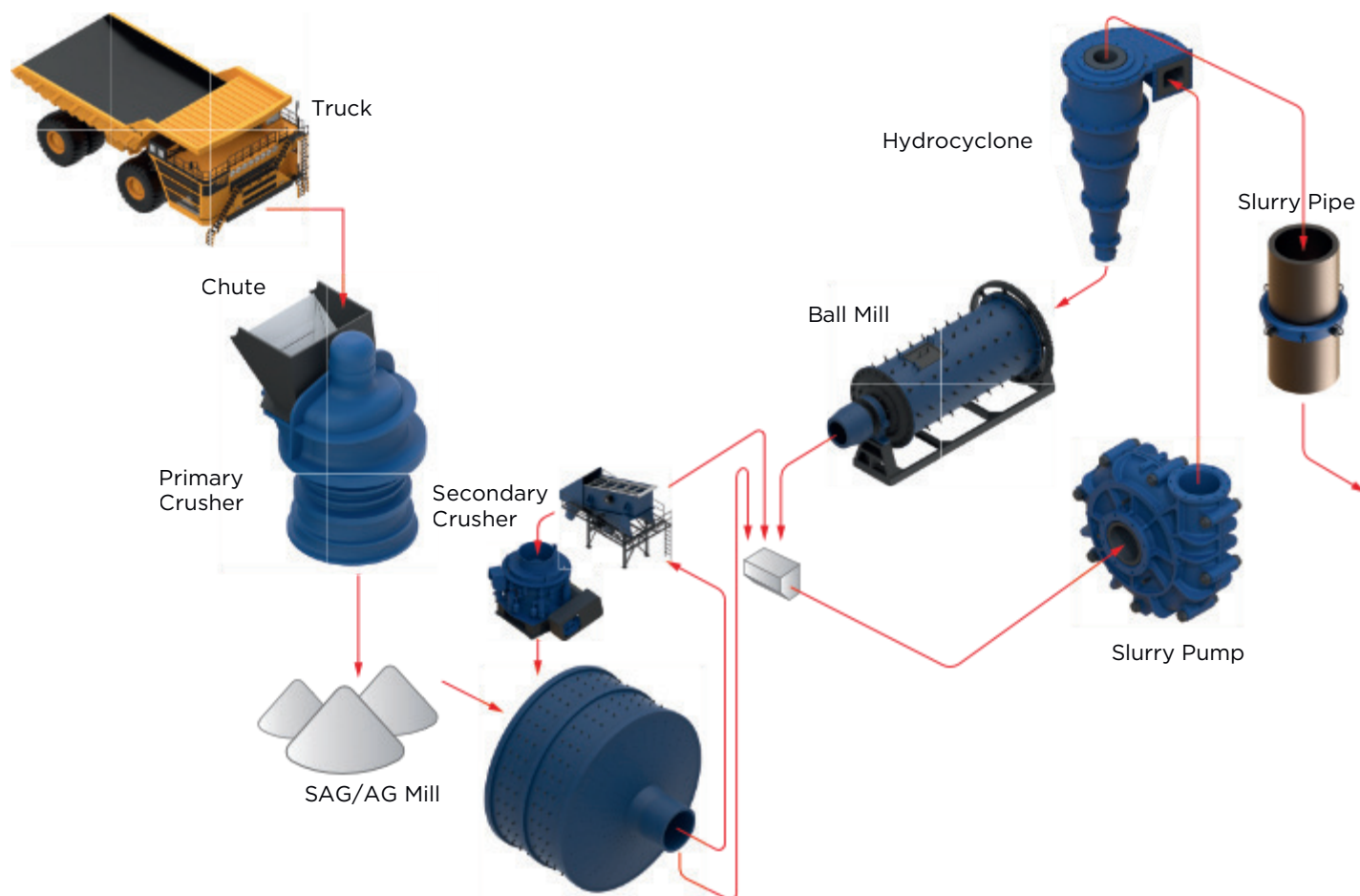
ACCESS TO EXPERTISE

By working with us, you gain access to a team of experts ready to provide tailored advice to drive performance. Our industry experience and data expertise ensure you receive the insights needed to succeed.

A real-time wear monitoring system engineered for extreme environments.

Wireless sensors providing real, live, actionable data points of an asset's wear.

KNOW YOUR WEAR



Benefits of Wear Sensors



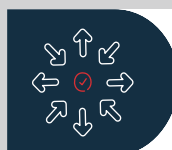
Maximise uptime



Redefine safety and safety standards



Optimise operations and improve productivity



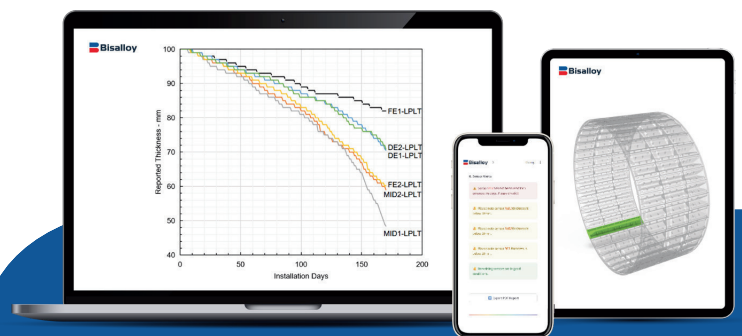
Minimise waste and optimise wear design

MILLS



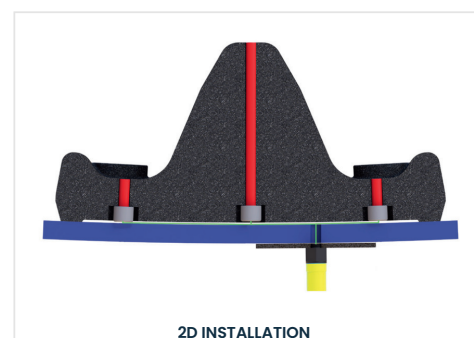
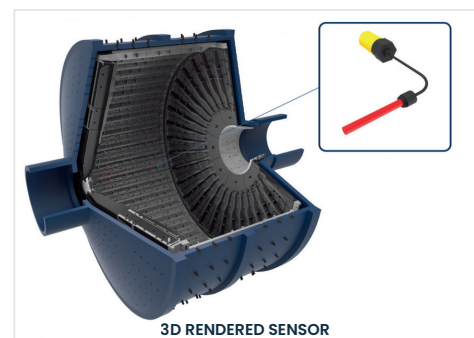
Mills crush and grind ore into fine particles, liberating valuable minerals for extraction. The liners within these mills play a vital role, not only protecting the mill shell from heavy impact and abrasion but also enhancing grinding efficiency. Wear sensors integrated into these liners are a must in any modern smart milling operations. They enable real-time remote monitoring, predictive maintenance, and optimised liner usage and design, which improves operational efficiency, reduces downtime, and enhances safety. By delivering precise data, these sensors empower data-driven decision-making, contributing significantly to the overall performance, cost-effectiveness, and sustainability of mining operations. The industry's only non-conductive wear sensor, a game-changer for slurry and wet environments. Designed to deliver precise and reliable data where conductivity often distorts readings, this groundbreaking technology is essential for maintaining data integrity in mills, slurry pumps and pipes.

- Incorporated within the liner casting
- Actionable data to optimise production
- Real-time reporting
- Seamless integration
- Array of sensors - monitor both the lifter and the plate
- Tailored for precision - our wear sensors are fit for purpose, delivering customisable solutions



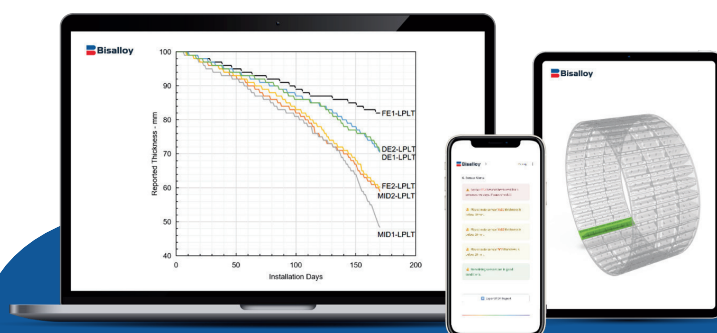
Remove the unknown - install wear sensors to know when to replace your liners and maximise your return on investment.

SPECIFICATIONS	ACTIVE
Length	25-1000mm
Probe diameter	10mm
Resolutions	>0.2mm
Graduations	0-100 *infinitely variable
Response speed	<1ms
Battery life	2 years
Cloud platform compatible	Yes
Water rating	IP67
Working temperature range	-40 ~ 85°C
Vibration	14.1g, IEC 60068-2-64:2008
Shock	10g, IEC 60068-2-6:2007
EMC - IEC	IEC 61000-4-2
EMC - ESD	IEC 61000-4-3



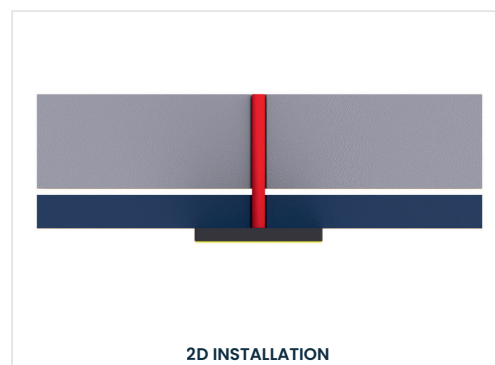
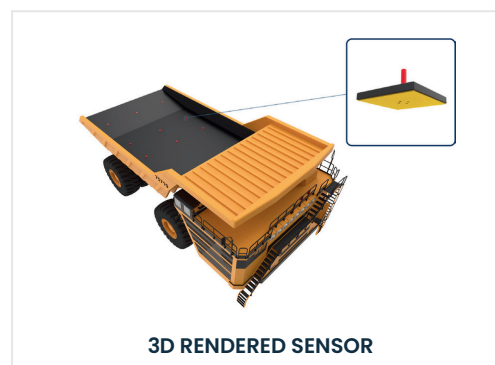
Mining dump trucks are used to transport large volumes of mined materials such as ore, coal, and waste rock. The liners inside these trucks protect the truck bed from the abrasive and heavy impact of the materials being hauled. Wear sensors in mining dump truck liners are a critical technology for modern mining operations. They enable real-time monitoring, predictive maintenance, and optimized liner usage, leading to improved operational efficiency, cost savings, and enhanced safety. By providing accurate wear data, these sensors support data-driven decision-making and contribute to the overall success and sustainability of mining operations.

- Easy to install – 10mm diameter cold-drill hole
- Set and forget – peace of mind established with alerts
- Real-time reporting
- Seamless integration
- Tailored for precision – our wear sensors are fit for purpose, delivering customisable solutions



Remove the unknown – install wear sensors to know when to replace your trays and maximise your return on investment.

SPECIFICATIONS	ACTIVE
Length	25-500mm
Probe diameter	10mm
Resolutions	>0.2mm
Graduations	0-8 *infinitely variable
Response speed	<1ms
Battery life	N/A
Cloud platform compatible	Yes
Water rating	IP67
Working temperature range	-40 ~ 85°C
Vibration	14.1g, IEC 60068-2-64:2008
Shock	10g, IEC 60068-2-6:2007
EMC - IEC	IEC 61000-4-2
EMC - ESD	IEC 61000-4-3



HYDROCYCLONES



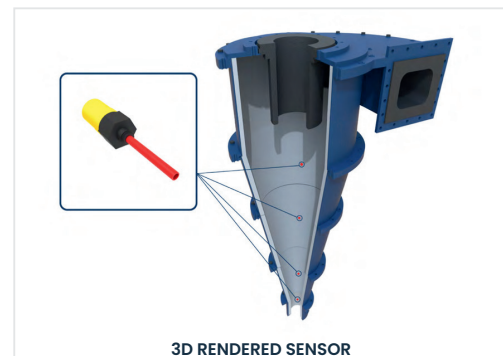
Hydrocyclones precisely classify and separate particles in a slurry mix. The liners within protect internal surfaces from abrasive slurry and maintain separation efficiency. Wear sensors embedded in these liners are a must in modern smart operations. They enable real-time remote monitoring, predictive maintenance, and optimised liner usage, leading to improved operational efficiency, reduced downtime, and enhanced safety. By delivering accurate, real-time data, these sensors support data-driven decision-making, significantly improving overall performance, cost-effectiveness, and sustainability. The industry's only non-conductive wear sensor, a game-changer for slurry and wet environments. Designed to deliver precise and reliable data where conductivity often distorts readings, this ground-breaking technology is essential for maintaining data integrity in mills, slurry pumps and pipes.

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- Set and forget – peace of mind established with alerts
- Real-time reporting
- Seamless integration
- Tailored for precision – our wear sensors are fit for purpose, delivering customisable solutions

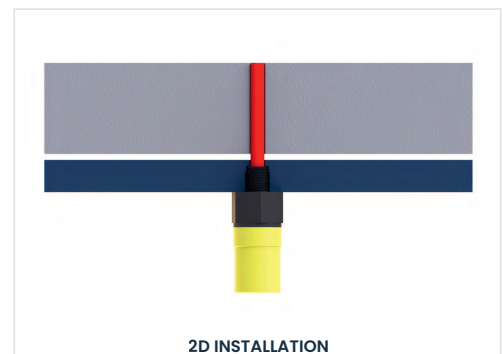


Remove the unknown – install wear sensors to know when to replace your liners and maximise your return on investment.

SPECIFICATIONS	ACTIVE
Length	25-1000mm
Probe diameter	10mm
Resolutions	>0.2mm
Graduations	0-100 *infinitely variable
Response speed	<1ms
Battery life	2 years
Cloud platform compatible	Yes
Water rating	IP67
Working temperature range	-40 ~ 85°C
Vibration	14.1g, IEC 60068-2-64:2008
Shock	10g, IEC 60068-2-6:2007
EMC - IEC	IEC 61000-4-2
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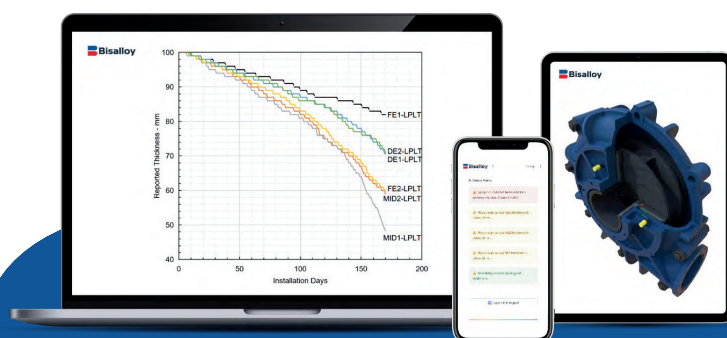
3D RENDERED SENSOR



2D INSTALLATION

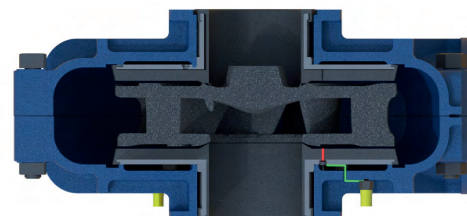
Slurry pumps efficiently transport abrasive and high-density materials. Wear sensors in slurry pump liners are a critical technology for modern smart operations. They enable real-time monitoring, predictive maintenance, and optimised liner usage, leading to improved operational efficiency, cost savings, and enhanced safety. By providing accurate wear data, these sensors support data-driven decision-making and contribute to the overall success and sustainability of mining and mineral processing. The industry's only non-conductive wear sensor, a game-changer for slurry and wet environments. Designed to deliver precise and reliable data where conductivity often distorts readings, this ground breaking technology is essential for maintaining data integrity in mills, slurry pumps and pipes.

- Easy to install – 10mm diameter cold-drill hole
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- Real-time reporting
- Seamless integration
- Tailored for precision – our wear sensors are fit for purpose, delivering customisable solutions



Remove the unknown - install wear sensors to know when to replace your liners and maximise your return on investment.

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Length	25-1000mm
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Graduations	0-100 *infinitely variable
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Cloud platform compatible	Yes
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Vibration	14.1g, IEC 60068-2-64:2008
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2D INSTALLATION



3D RENDERED SENSOR

SLURRY PIPES



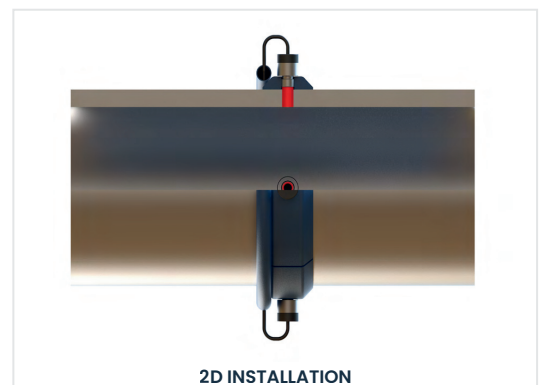
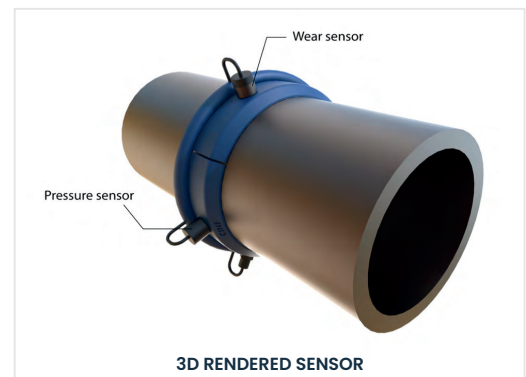
Slurry pipes efficiently transport abrasive and high-density materials. Wear sensors in slurry pipe liners are a critical technology for modern smart operations. They enable real-time monitoring, predictive maintenance, and optimised liner usage, leading to improved operational efficiency, cost savings, and enhanced safety. By providing accurate wear data, these sensors support data-driven decision-making and contribute to the overall success and sustainability of mining and mineral processing. The industry's only non-conductive wear sensor, a game-changer for slurry and wet environments. Designed to deliver precise and reliable data where conductivity often distorts readings, this groundbreaking technology is essential for maintaining data integrity in mills, slurry pumps and pipes.

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- Tailored for precision - our wear sensors are fit for purpose, delivering customisable solutions
- We can also provide pressure sensors for your pipes.



Remove the unknown - install wear sensors to know when to replace your liners and maximise your return of investment.

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Vibration	14.1g, IEC 60068-2-64:2008
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EMC - IEC	IEC 61000-4-2
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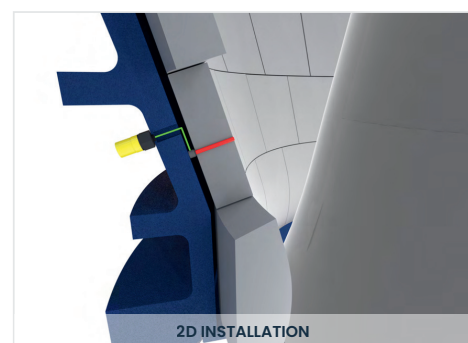
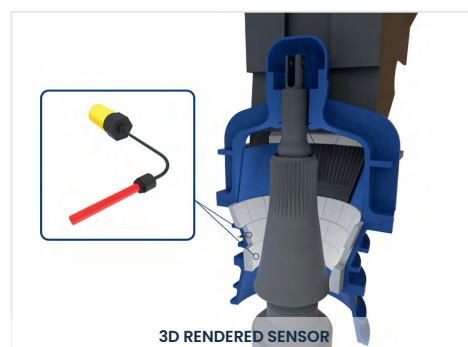
Crushers are responsible for breaking down large chunks of ore into smaller, manageable sizes, a vital step that prepares the material for further processing and extraction of valuable minerals. The liners within these crushers are crucial, not only for protecting the crusher chamber from the intense impact and abrasive wear but also for improving crushing efficiency. Wear sensors embedded in these liners are a must in any modern smart crushing operations. They allow for real-time remote monitoring, predictive maintenance, and optimised liner usage and design, resulting in enhanced operational efficiency, reduced downtime, and improved safety. By providing accurate, real-time data, these sensors facilitate informed, data-driven decision-making, significantly boosting the overall performance, cost-effectiveness, and sustainability of mining operations

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Probe diameter	10mm
Resolutions	>0.2mm
Graduations	0-100 *infinitely variable
Response speed	<1ms
Battery life	2 years
Cloud platform compatible	Yes
Water rating	IP67
Working temperature range	-40 ~ 85°C
Vibration	14.1g, IEC 60068-2-64:2008
Shock	10g, IEC 60068-2-6:2007
EMC - IEC	IEC 61000-4-2
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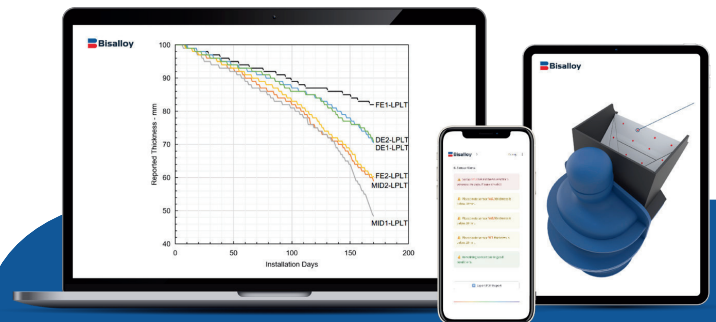


CHUTES



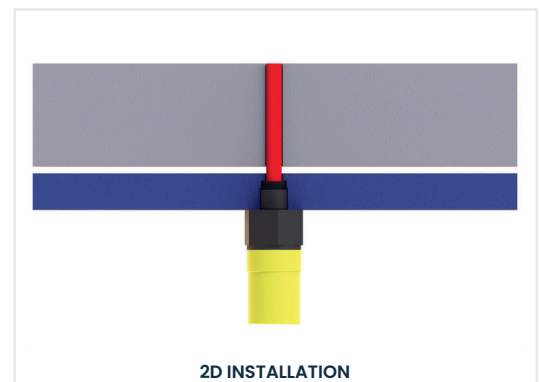
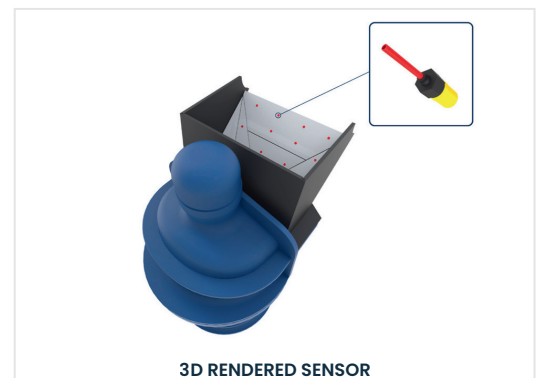
Chutes are responsible for directing the flow of crushed ore and other materials between different stages of processing. The liners within these chutes play a crucial role, not only in protecting the chute walls from severe impact and abrasive wear but also in maintaining optimal material flow. Wear sensors embedded in these liners are a must in any modern smart operations. They enable real-time remote monitoring, predictive maintenance, and optimised liner usage, resulting in increased operational efficiency, reduced downtime, and enhanced safety. By delivering accurate, real-time data, these sensors support data-driven decision-making, significantly improving the overall performance, cost-effectiveness, and sustainability of mining operations.

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