

■ Application Scenarios: steel plant / port / mine / power plant / cement



## Product Series: *BTZN-GK5111M*

Longitudinal tearing of conveyor belts is a catastrophic operational failure in the bulk material handling industry. Such incidents entail exorbitant repair costs, prolonged downtime, and severe safety risks. By embedding specialized inductive metal loops within the belt and integrating high-performance monitoring sensors, this BOTON system establishes a real-time, passive, and comprehensive monitoring network.

### Conveyor Belt Longitudinal Tear Detection System – Inductive Loop Version

#### Functional Features

- Real-time Monitoring: 24/7 continuous monitoring of the status of internal coil loops within the conveyor belt.
- Precise Localization: In the event of punctures or scratches causing loop breakage, the system responds within milliseconds and accurately pinpoints the incident location.
- Instant Alert: Immediately triggers audible and visual alarms and initiates an emergency shutdown to contain the tear at its initial stage, preventing any escalation of damage.
- The system configuration is flexible and scalable, supports monitoring of multiple conveyor lines, covers multi-scenario and long-distance conveying requirements, and adapts to production scenarios of different scales.



#### Operational Simplicity

*Easy Integration and Maintenance*

#### Passive Design

*Passive Design,  
Built for Harsh Environments*

#### Flexible Scalability

*Long-Distance Adaptability,  
Multi-Scenario Compatibility*

#### User-Friendly Operation

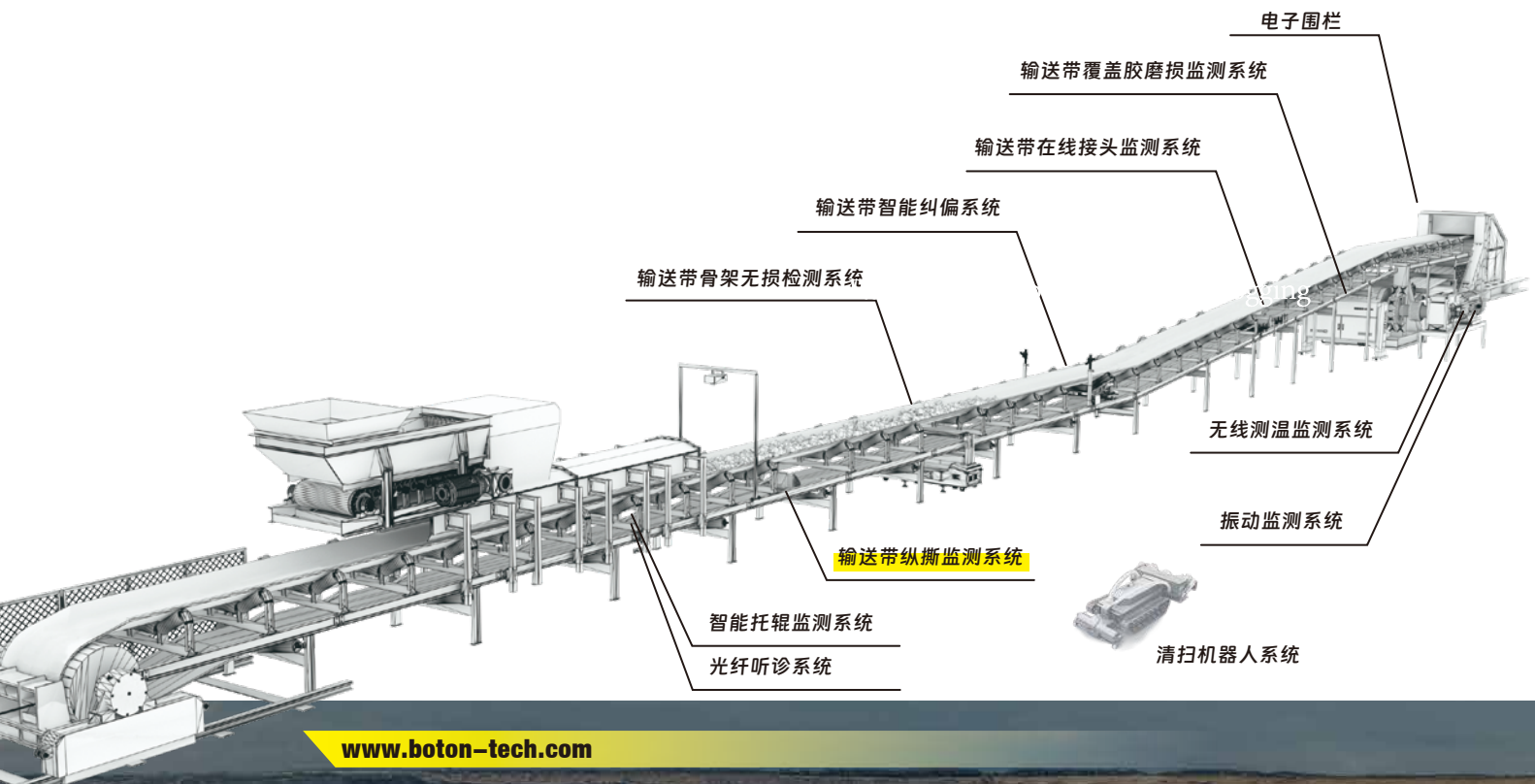
*Simple Interface,  
Easy and Efficient Operation*



# Key Technical Parameters

| Category              | Parameters               | Category              | Parameters                            |
|-----------------------|--------------------------|-----------------------|---------------------------------------|
| Applicable Belt Speed | 0-10m/s                  | Operating Temperature | -30-60℃(Low-temp Version: -50 to 60℃) |
| Applicable Belt Width | 1000-3000mm              | Storage Temperature   | -40-80℃(Low-temp Version: -50 to 80℃) |
| Atmospheric Pressure  | 80-106Kpa                | Relative Humidity     | ≤ 95%RH (Non-condensing)              |
| Sensor IP Rating      | IP66                     | Relative Humidity     | 7×24h                                 |
| Power Supply          | 85-264VAC (Customizable) |                       |                                       |

## Software Platform



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Boton focuses on providing intelligent service solutions for industrial bulk material handling. Our main business includes intelligent turnkey service, overall solutions for intelligent conveying, aim for energy saving, environmental protection and green transformation etc. Boton takes the lead in launching a new model of "integrated general contracting services for conveying systems" in China which changed the situation of different value orientations in the traditional product sales model. This new model speeds up marketization of new technology & new products and has been recognized by many clients domestically and globally.