

The Pulse™ system's automated 24/7 belt monitoring represents a significant advance over conventional inspections. Its assurance of belt integrity sets a new standard for monitoring, maintenance and safety.

**MAJOR BENEFITS**

Continuous monitoring brings peace of mind

Immediate, automatic reporting enhances safety and eliminates service interruptions for belt inspections

Advance notice of belt wear helps manage maintenance scheduling

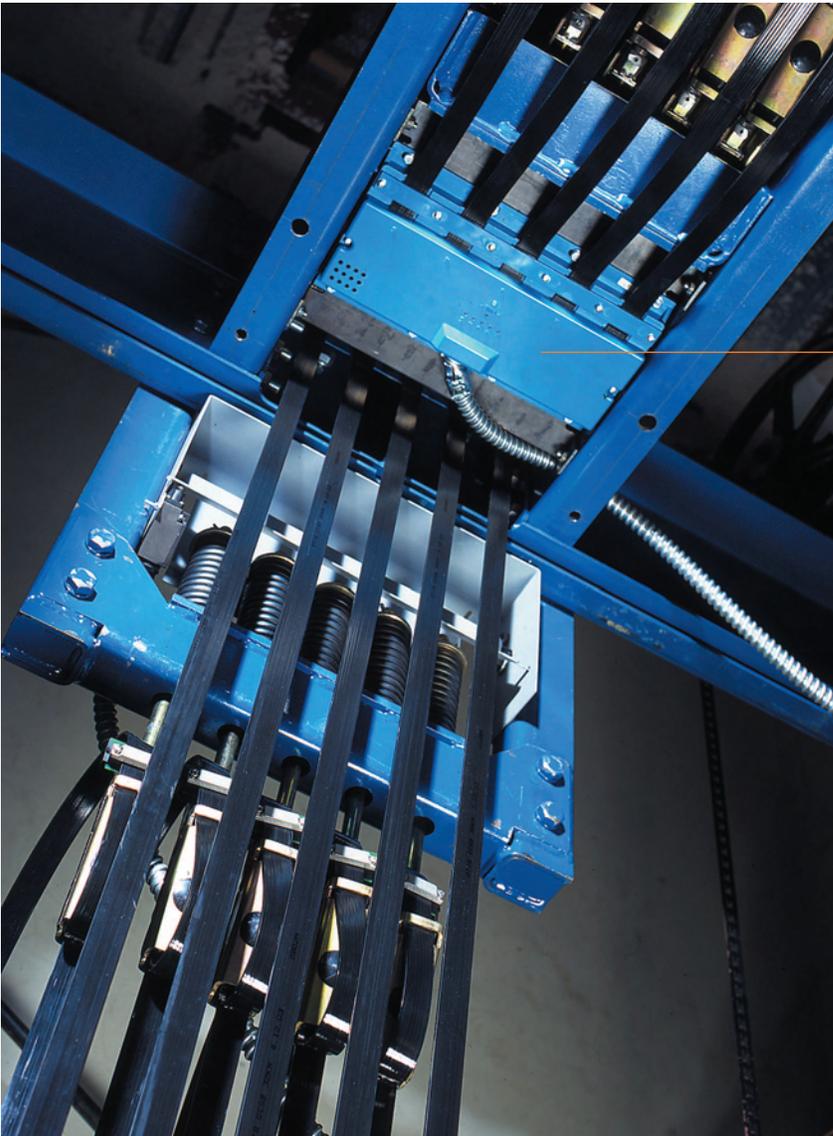
**Superior monitoring while eliminating inspection downtime**

Otis' Pulse system continuously monitors and ensures the integrity of the Gen2™ flat coated-steel belts.

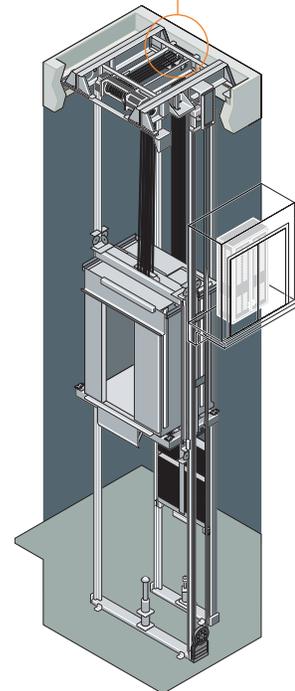
Conventional wire rope inspection relies on periodic visual examination of the lifting ropes, which requires taking the elevator out of service. These manual

inspections involve examining the rope for broken exterior strands. This time-consuming method can leave broken interior strands undetected.

The Pulse system's automatic 24/7 monitoring and reporting eliminates the need for elevator downtime while greatly enhancing the quality and reliability of the inspection.



The unit is located at the top of the hoistway, where it is connected at the belt termination.



The Pulse™ system's first-of-its-kind technology provides greater safety and peace of mind through its immediate, automatic reporting of belt status. Its around-the-clock monitoring eliminates inspection-related service interruptions while providing advance notice of belt wear.

DESCRIPTION



Gen2 coated-steel flat belts

Rather than manually counting surface wire breaks, as with traditional rope inspection, the Pulse system monitors the diameter of each cord contained in the Gen2™ coated-steel belts. **A** The electrical resistance of each cord is proportional to its cross-sectional area, which is a measure of its remaining useable life. The Pulse system continuously monitors this resistance to determine when the belts should be replaced.

The belts' steel cords are individually monitored via conducting pins **B** that penetrate through the belt coating to make electrical contact with each cord. The system continuously monitors wear and provides an automatic alert more than a year in advance of when the belts need replacement. This timely notification allows for convenient maintenance scheduling.

In addition, the Pulse system signals an alarm if it detects jacket degradation or a broken cord. The system also provides an alarm when the cords have reached their wear-tolerance limit. In response to an alarm, the car is sent automatically to the next landing and the system is shut down. The service organization is notified through a standard callback or via the REM® (remote elevator monitoring) system.

The Pulse system offers several reporting options. On elevators equipped with REM service, the system can remotely report belt wear and system faults for rapid diagnosis and response. On systems without REM service, LEDs **C** on the unit alert maintenance personnel more than a year in advance of the need for belt replacement.

The Pulse monitoring system is installed on all new Gen2 elevators.

