



## Monitoring data storage

Preventive maintenance and monitoring data logging of operating parameters.

The monitoring data storage function is based on a controller device for acquiring, recording and providing warnings on relevant and critical issues for preventive maintenance purposes. It provides information on the working safety period of the gear box, improper crane operations and important occurrences such as overload and overspeed.



### Benefits

**Optimisation of safety  
equipment service life**

Maximum use of critical equipmentsuch as the gearbox via automatic calculation of the working safety period.

**Prevent problems from  
becoming maintenance  
issues**

Reliable and up-to-date crane diagnostics through historical data maintenance.

**Save maintenance time**

By determining the origin of the problem before solving it.

## Operating principle

### **Maintenance data storage:**

For acquiring, warning and recording the most relevant maintenance data. The goal is to provide efficient maintenance information coordinated with the crane's operations. This function calculates the working safety period by counting the working hours and taking into account the load weight which was hoisted during these working hours.

### **Event warning and recording:**

Notification and recording of critical events such as overload, overspeed, load slipping, and encoder faults to enable the complete diagnostic of the crane.

### **Improper crane operations data register:**

This detects operations such as pulsating or backtracking that can impact the service life of the equipment and increase maintenance service time.

## Characteristics

### **All movements are controlled:**

While the main movement controlled is hoisting, these function blocks can control all movements simultaneously.

### **Maintenance data storing:**

- Working hours and number of operations by movement
- Working hours at 300 and 600 operations per hour
- Working Safety Period (WSP) by using load cell or drive estimation

### **Event warning and recording:**

- Overload and overspeed recording: last 20 events, including, date and duration
- Load slipping (accumulated events)
- Encoder fault (accumulate events)
- Configurable alarm for all these event

### **Improper crane operations data register:**

Pulsating and backtracking register for all movements selected

## Typical applications

### **Construction cranes**

- Self-erecting cranes
- Tower cranes

### **Industrial cranes**

- Overhead travelling cranes
- Gantry cranes

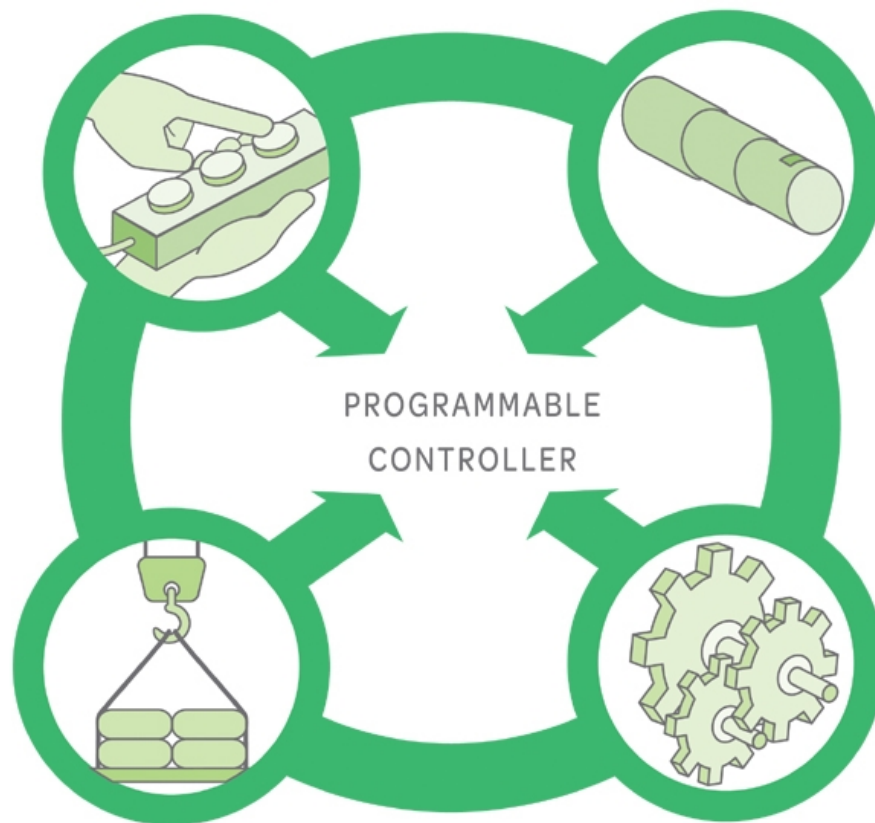
## Typical architectures

### **Construction cranes**

- **Simple hoisting**  
Compact / Hardwired / Logic controller / Zelio Logic
- **Optimized hoisting**  
Compact / CANopen / Drive controller / ATVIMC

### **Industrial cranes**

- **Simple hoisting**  
Compact / Hardwired / Logic controller / Zelio Logic
- **Optimized hoisting**  
Compact / CANopen / Drive controller / ATVIMC
- **Optimized hoisting**  
Compact / CANopen / Logic controller / M238



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