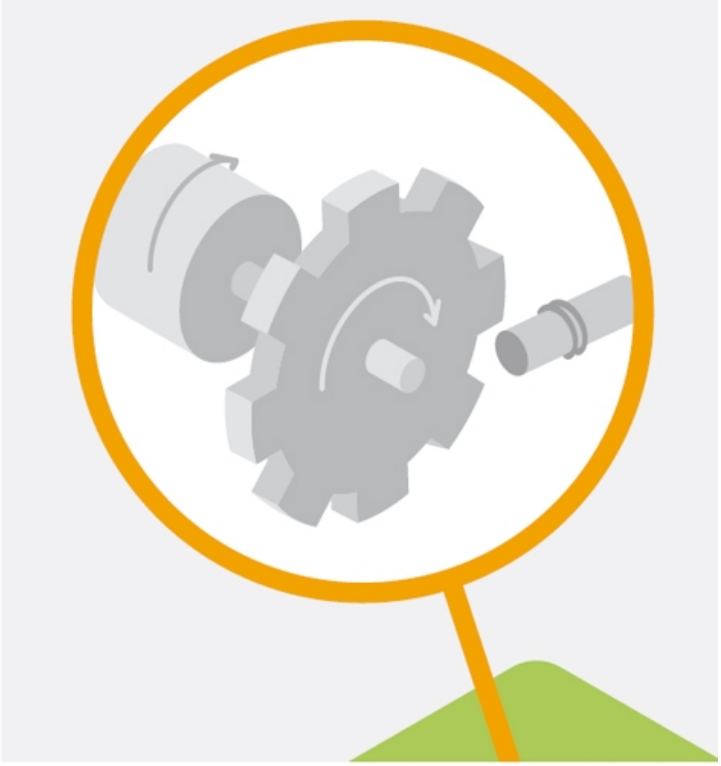
Load overspeed control

Increase protection of crane equipment and reduce risks.

Internal faults can generate load slipping which can lead to an increase in load speed to and associated risk. Load overspeed control is based on a sensor and a controller. When the nominal speed is exceeded, the controller must trigger an emergency stop and the function sends an alarm to control the situation.



Benefits

Reduce risks
Prevent the load from falling.

Increase equipment protection
Prevent damage to the gear box and motor.

Optimised and compact installation
A dedicated device is not required; the same controller can be used for several functions.

Complete diagnostic
The most recent overspeed events, with time and date, are recorded as part of the preventive maintenance and monitor.

Operating principle

The objective is to control the nominal speed of the load. The controller must initiate an emergency stop when the speed value is over 110% of threshold speed selected in each movement direction.

Characteristics

• The motor speed signal comes from a proximity sensor. It detects the metal cam wheel linked to the drum of the hoisting rotation axis.
• An encoder can be used instead of a proximity sensor; it should be installed in the drum of the hoisting rotation axis
• Time and date of the most recent events are recorded for maintenance diagnostic

Typical applications

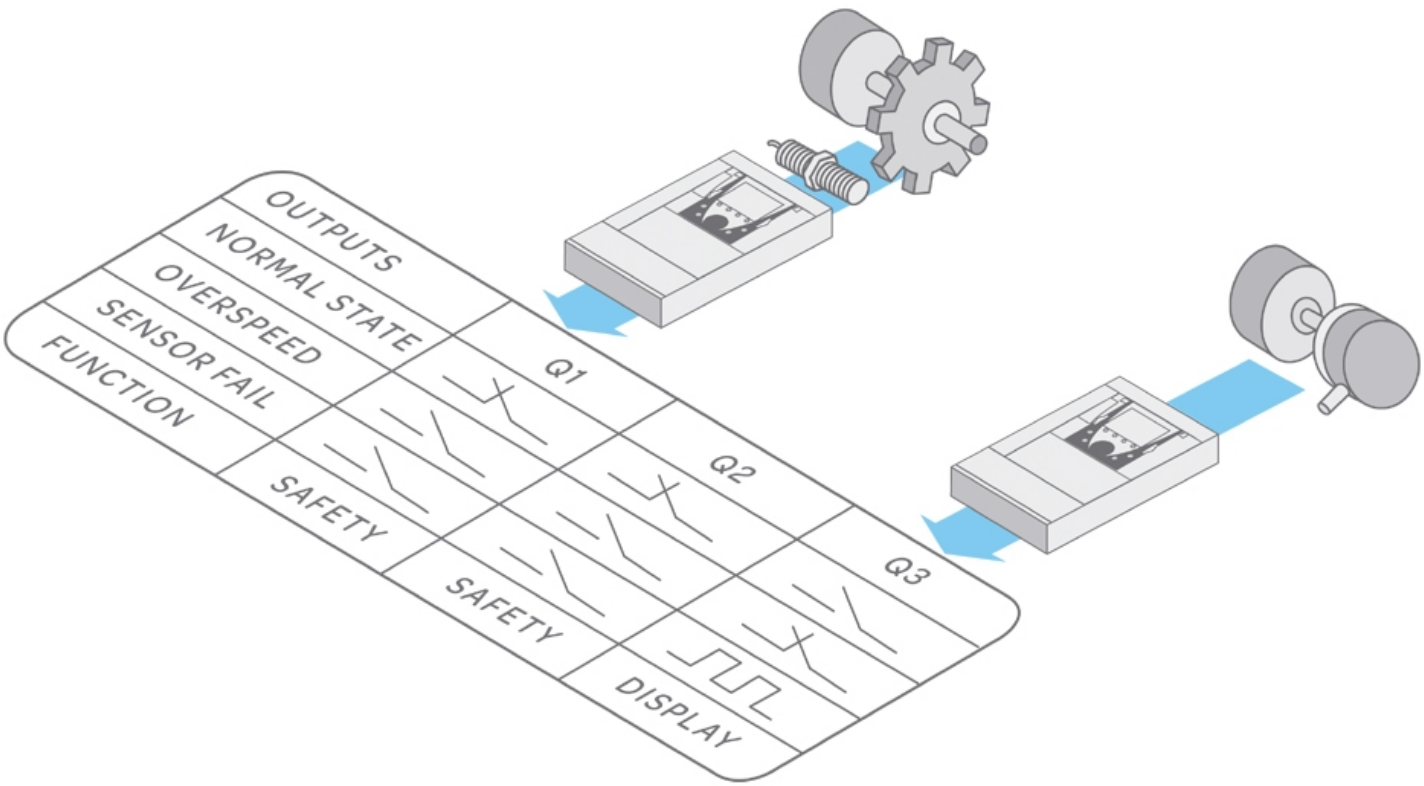
Construction cranes
• Tower cranes

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 / ATV-IMC

Industrial cranes
• **Simple hoisting**
Compact / Hardwired / Logic controller / Zelio Logic
• **Optimized hoisting**
Compact / CANopen / Drive controller / ATV-IMC
• **Optimized hoisting**
Compact / CANopen / Logic controller / M238



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