OsiSense for your hoisting applications
Our products

> **Telemecanique Sensors**: a world-class global brand offering a comprehensive line of products with over 25,000 types of sensors, including OsiSense™ limit switches, pressure sensors, photoelectric sensors, and proximity sensors. Additionally, we offer industrial encoders and state-of-the-art RFID systems that are compatible with many PLC systems.

> **Telemecanique Sensors**: known for high quality and superior performance, Telemecanique™ is second to none, and complies with global standards including IEC, NEMA, CE, CCC, UL, and CSA.

Our sales team

> **A dedicated sales team**: trained and experienced sales professionals are available to help you with any sensing application.

> **Telemecanique sensors teams**: are available for pre- and post-sales support. We become an extension of your team by sharing our expertise with you.

Localized manufacturing

> **High-volume manufacturing**: manufacturing is located in each of the major markets of Europe, North America, and Asia to ensure prompt delivery and short lead times to our local distribution centers worldwide.

> **Regional flex-centers**: enable fast response and quick delivery of customized products and services.

Availability and reliability

> **A worldwide supply chain with a network of local distribution centers** ensure the availability of Telemecanique Sensors and allow us to be a reliable supplier and partner.
Choose the best product for your applications

Overtravel function

- Mechanical stop, ultimate stop to avoid possible damage to the machine
- **Horizontal movements (X & Y axis)**
  - Rotary limit switch to detect and signal overtravel
- **Vertical movements (Z axis)**
  - Rotary limit switch to detect winch overtravel
  - Limit switch incorporated in the hoist winch or on the drum: XCMD or XCKM
  - Indicate when drum/winch cable is fully wound/unwound

Stop and slow down functions

- Electrical and mechanical stop, end of working area electrical stop, speed reduction in order to reach the stop at slow speed
- **Horizontal movements (X & Y axis)**
  - Two speed cross limit switch, slow down, and stop functions using one single sensor: XCKMR or new limit switch XCKVR
  - Rotary head industrial limit switch to detect a fixed stop position: XCRA
  - Anticollision functions with other mobile equipment by using sensors with two logic outputs XUE or one logic output XUX
- **Vertical movements (Z axis)**
  - Rotary encoders allow complete hoisting position control: XCC
  - Limit switch linked with the drum giving “stop down” information, “cable slack” detection, and “stop up” information “cable overlap” detection: XCKM
  - Inductive proximity sensor monitors the cable on the drum, giving “stop down” information “drum empty” for cable’s end: XS
  - Limit switch on hoist fix point giving stop up function “overload”: XCKM.

Positioning function

- Electrical information provide specific positions in the working area
- **Horizontal movements (X & Y axis)**
  - Incremental and absolute rotary encoders for linear position control: XCC
  - Detection of a fixed point to overcome the wheel slippage and for any known position: XS
  - Distance measurement sensors to monitor the position of other equipment by using an analog output: XUE.
- **Vertical movements (Z axis)**
  - Incremental and absolute rotary encoders (connected to the drum) for linear height control: XCC
1. OsiSense XCKVR/XCKMR - Two directions/two speeds with one compact, rugged and reliable sensor
2. OsiSense XCC - Precise position information with absolute encoder
3. OsiSense XUX/XUE - Long distance detection
4. OsiSense XCKM/XCR - Rugged and reliable
5. OsiSense XCC/XS - Easy installation and adjustment
6. OsiSense XCR - The ultimate hoisting protection

Detecting overtravel
Detecting hoist overspeed
Detecting trolley movement overtravel
Detecting another crane Anticollision function
Detecting stop and slow down of the hoisting movement
Detecting stop and slow down of the horizontal movement and any other trolley position
Detecting winch overtravel of the vertical movement
Detecting overtravel and slow down of the hoisting movement

Overhead and gantry crane
Detecting moving
Detecting another crane
Detecting hoist overspeed
Detecting stop and slow down
Detecting another crane
Detecting hoist overspeed
Detecting stop and slow down
Detecting another crane
Detecting hoist overspeed
Detecting stop and slow down
Detecting another crane
Mobile crane

Detecting stop and slow down of the hoisting movement
Detecting deployment of the stabilizers
Monitoring and regulating hydraulic pressure
Detecting position of the stabilizers

1. OsiSense XCC
   Precise position information with absolute encoder
2. OsiSense XMLP
   Compact and robust for reliable pressure regulation
3. OsiSense XS
   Easy installation and adjustment of detection distance
4. OsiSense XCKD + XCKZ05
   Robust for high impact resistance

Block hoist

Detecting stop, up, and down of the vertical movement
Miniature switches incorporated in the hoist winch

1. OsiSense XCMD
   Compact with modular heads for easy mechanical adjustment
2. OsiSense XCR
   Two directions/single speed with one compact, rugged and reliable sensor
Tower crane

- Detecting hoist overspeed
- Detecting specific position for overload or overtorque control
- Detecting trolley overtravel
- Detecting stop and slow down of the horizontal movement and any other trolley position
- Detecting rotation position

1. OsiSense XCC/XS - Easy installation and adjustment
2. OsiSense XCKM/XCR - Rugged and reliable
3. OsiSense XCR - The ultimate trolley protection
4. OsiSense XCKVR/XCKMR - Two directions/two speeds with one compact, rugged and reliable sensor
5. OsiSense XCC - Precise position information with absolute encoder
Harbor crane

1. OsiSense XCC/XS - Easy installation and adjustment
2. OsiSense XCKVR/XCKMR - Two directions/two speeds with one compact, rugged and reliable sensor
3. OsiSense XCKM/XCR - Rugged and reliable
4. OsiSense XCC - Precise position information with absolute encoder
5. OsiSense XUX/XUE - With reflector: long distance detection

Detecting any trolley position with resynchronization position

Detecting stop and slow down of the horizontal movement and any other trolley position

Detecting trolley overtravel
Detecting anchoring of the long travel
Monitoring the boom sequence

Detecting stop, slow down, and any other position of the hoisting and boom movements

Detecting another crane
Anticollision function

Detecting trolley overtravel
Detecting anchoring of the long travel
Monitoring the boom sequence