Sensor solutions for railway applications
Telemecanique Sensors is a world-class global brand offering a comprehensive line of products with over 25,000 types of sensors, including limit switches, pressure sensors, photoelectric, and proximity sensors. We also provide industrial encoders and state-of-the-art RFID systems that are compatible with many PLC manufacturers. Telemecanique Sensors has all the right agency approvals, such as IEC, NEMA, CE, CCC, UL, CSA, EAC.

Telemecanique Sensors is focused on three core values — Simplicity, Proximity, and Expertise. We have become experts in factory automation sensors as well as specialists in demanding applications, making our customers’ lives “Simply easy!”

Railway-ready sensors

The line of sensor products that make up the Telemecanique Sensors Railway Industry offer specifically address the necessary standards, constraints, and detection goals of railroad systems worldwide.

Reinforced safety with new EN45545 standard for rolling stock
The Telemecanique Sensors products for the railway industry meet the most stringent standards in regard to reaction and resistance to fire:
- Compliant with the new fire behavior of the materials and components regulations
- Compliant with the HL2/R26 severity level of the EN 45545 standard
- Integrated with cables that are certified EN 50306 and EN 50264

Unparalleled, robust sensor functionality
Consistent with the reputation built by Telemecanique Sensors, the products they offer for the railway industry are benchmarks in regard to their performance, reliability, and efficiency. This line of railway industry sensors will:
- Resist shocks and vibrations according to the EN 61373 standard
- Resist a wide temperature range from -25 °C to 70 °C
- Endure up to several million mechanical and electrical operations

Compact and easy-to-install solutions
Space is at a premium in the railway industry, both on the trains themselves and in the stations that service them. The Telemecanique Sensors product offering reflects our innovative focus not only in regard to making our products compact and lighter to fit the majority of railway application designs, but in regard to making our sensors adaptable by offering a wide range of connectors. Take them out of the box. Quickly install them. Simply easy!
Automatic doors

1. OsiSense XCMD or XCMN - Miniature limit switch
2. Osisense XUK9 - Compact photoelectric sensor
3. OsiSense XCKD - Universal limit switch with roller lever plunger

Detecting train door position
Detecting platform door position
Detecting passengers for doors inside the train
Activating the folding step
Pantograph, air conditioning, and coupling systems

1. OsiSense XMLC: Electromechanical pressure sensor with pre-adjusted pressure threshold
2. OsiSense XMLP: Compact electronic pressure sensor for HVAC
3. OsiSense XS618: Inductive proximity sensor
Air supply and braking systems

1. Managing compressed air in the air supply systems
   - OsiSense XMLA/B or XMLP
     - Electromechanical or electronic pressure sensor

2. Checking pressure in the braking systems
   - OsiSense XMLA/B or C
     - Electromechanical pressure sensor with pre-adjusted pressure threshold

3. Controlling the railroad turnout system
   - OsiSense XCMD or XS
     - Limit switch or inductive proximity sensor
Choose the best-suited product for your application

This table presents a small part of our offer for railway applications. To know more, visit our website [www.tesensors.com](http://www.tesensors.com) or contact your local sales agency for adapted products.

### Limit switches

<table>
<thead>
<tr>
<th>Contacts composition</th>
<th>Roller plunger</th>
<th>Roller lever plunger vertical or horizontal action</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO+NC snap action</td>
<td>XCMD2102T1</td>
<td>XCMD2115T1</td>
</tr>
<tr>
<td>NO+NC snap contacts</td>
<td>XCMD2128T1</td>
<td></td>
</tr>
<tr>
<td>NO+NC snap action</td>
<td>XCMN2102T1</td>
<td>XCMN2115T1</td>
</tr>
<tr>
<td>NO+NC snap action</td>
<td>XCMN2121T1</td>
<td></td>
</tr>
</tbody>
</table>

**Miniature metal body with 1 m cable halogen free**

**Classic metal body, EN50047 format, ISO M16x1.5 output**

**Pg11 x 3 entries, metal body**

### Pressure sensors

Electromechanical pressure switches, 2 thresholds and 1 contact 10 bars, (with special eyelet terminal lug and dedicated factory setting on request)

Electromechanical pressure switches, 2 thresholds and 2 separate contacts 10 bars, (with special eyelet terminal lug and dedicated factory setting on request)

Electronic pressure transmitters 10 … 60 Bar fluid entry 7/16 - 20 UNF or else

### Inductive sensors

Cylindrical M18 inductive proximity sensor, 24 … 240 VAC/DC

Cubic M12 inductive proximity sensor, 12 … 48 VDC

### Photo cells sensors

8m Reflex polarized photoelectric sensor, 24 … 240 VAC/DC, with a reflector

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Due to the constant evolution of standards and equipment, the specifications indicated in the text and images of this document can only be guaranteed after confirmation by our departments.

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