



Railway Applications

DETECTION - SWITCHING

ABOUT CROUZET

Switches & Position Sensors line offers snap action technology expertise through microswitches, limit switches and manually operated switches which are adaptable in terms of connectors, lever or body size.

The range also includes proximity sensors and switches.

These high quality and reliable products are suitable and crucial in harsh environments with severe constraints.

Crouzet is a brand of InnoVista Sensors™.

MARKETS

Crouzet has worked for decades with customers who design products for highly technical applications that demand superior quality, reliability and meet national and international regulatory standards.

Crouzet's switches and sensors are utilized in a wide spectrum of applications in the following markets:

- › Industrial Valve & Pumps
- › Nuclear Industry
- › Energy Distribution
- › Trains
- › Specialty vehicles



InnoVista Sensors™ is a worldwide industrial specialist of sensors, controllers and actuators for automated systems.

Through its brands, Crouzet and Systron Donner Inertial, InnoVista Sensors™ offers a wide range of reliable, efficient and customizable components dedicated to the Aerospace & Defense, Transportation and Industrial markets and segments.

Thanks to the recognized expertise of its teams and a strong innovation policy, InnoVista Sensors™ brings performance enhancing solutions to its customers worldwide.

InnoVista Sensors™: your trusted partner of choice to face industrial challenges of today and tomorrow.

www.innovistasensors.com

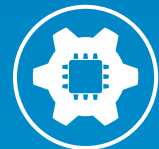
Designs & Manufactures



Sensors



Controls



Actuators

For



Aerospace & Defense



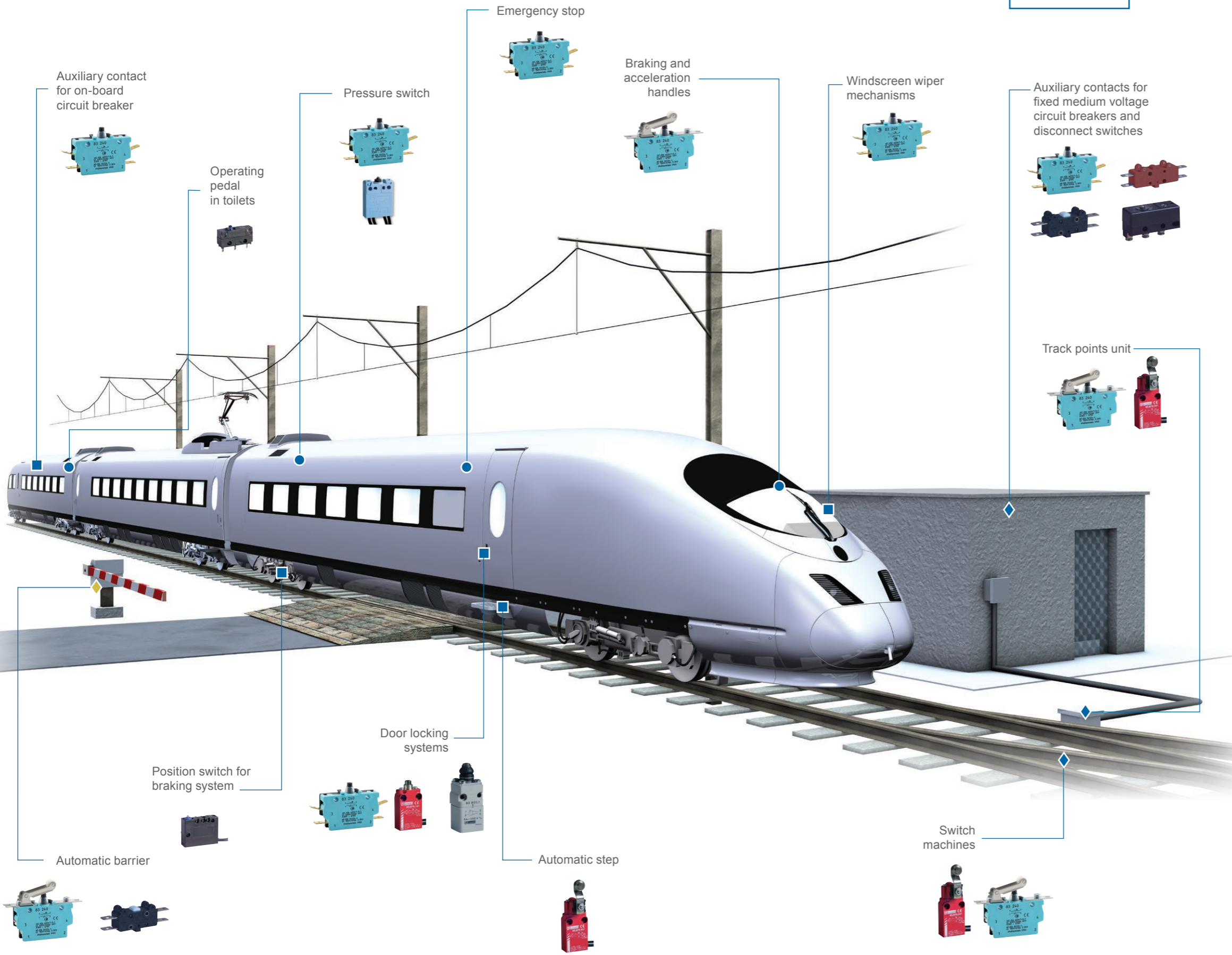
Transportation











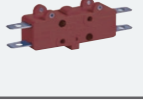









Industry

THE CROUZET OFFER FOR RAILWAY APPLICATIONS

- Bodywork
- Passenger compartment
- ◆ Infrastructure



MICROSWITCHES	
<p>◆ PBX Secure 8324x - Double break, Positive opening</p>  <ul style="list-style-type: none"> › Max. rating 10 A 250 VAC › Double break changeover (SPDT-form Zb) with positive break operation › Separate NO/NC circuits › IP67/IP65 sealed version. Low level version › Tag terminals (Lead output EN 50306: consult us). Levers. Mounting plates 	
<p>◆ 83106 - Double break, Momentary or Maintained function</p>  <ul style="list-style-type: none"> › Max. rating 10 A 250 VAC › Double break changeover (SPDT-form Za) › Multipole versions on metal plates › Wide choice of actuators for symmetrical mounting 	
<p>● 83139 - Double break, IP67 Protection, Wire/Cable output</p>  <ul style="list-style-type: none"> › Max. rating 6 A 250 VAC › Double break changeover (SPDT-form Za) › Double pole version (DPDT-form Za) › On request: Halogen-free wires or cable EN 50306 	
<p>◆ 83118 - High sensitivity</p>  <ul style="list-style-type: none"> › Max. rating 10 A 250 VAC › Low differential travel: max 0.09 mm › Low operating force: max 1.5 N › Wide choice of actuators 	
<p>■ V3S 83169 - Miniature, IP67 Protection, Wire/Cable output</p>  <ul style="list-style-type: none"> › Max. rating 8 A 250 VAC › Dual-current version 1mA 4 VDC to 5A 250 VAC › Low differential travel version, telescopic plunger, levers, ... › On request: halogen-free wires or cable 	
<p>◆ 83154 - Double break, High DC rating</p>  <ul style="list-style-type: none"> › Max. rating 5 A 250 VDC › Double break changeover (SPDT-form Za) with magnetic blow-out › Multipole versions on metal plates › Wide choice of actuators 	
<p>● V4S 8318x - Subminiature, IP67 Protection</p>  <ul style="list-style-type: none"> › Max. rating 10 A 250 VAC › Dual-current version 1 mA 4 VDC to 5 A 250 VAC › Special versions: easy installation, flexible levers, ... › Tag terminals or lead/cable output (halogen-free on request) › Extensive choice of actuators, 2 fitting positions 	
<p>◆ 8387x and 8388x - Cable output, Positive opening</p>  <ul style="list-style-type: none"> › Max. rating 10 A 250 VAC. Low level version › Double break changeover (SPDT-form Zb) with positive break operation. Separate NO/NC circuits › IP66/67 metal housing › Wide choice of actuators › On request: halogen-free cable EN 50306 	
<p>■ 8380x - Plug-in body</p>  <ul style="list-style-type: none"> › Max. rating 5 A 250 VAC › Double break changeover (SPDT-form Za) › IP65 plastic housing › Wide choice of actuators › Adaptation: halogen-free cable output 	

* Approval pending

WHO ARE WE?

Crouzet is a specialist in snap-action technology with its switching and detection solutions, and offers ranges of microswitches, limit switches, manually controlled switches and sensors.

As a supplier of original equipment to the leading manufacturers, parts manufacturers and the major national operators for maintenance operations, Crouzet guarantees the supply of components throughout the service life of equipment items.

Crouzet microswitches and limit switches are used in a wide range of on-board applications in rolling stock, as well as for certain fixed installations. These safety critical components detect positions and switch currents (high or low) within applications.

Designed for the most severe environments, they comply with railway standards such as those concerning fire/smoke, shock and vibration resistance, and electrical endurance.

With a worldwide presence in the railway industry, Crouzet works closely with its customers to adapt its products to meet the particular requirements of their specifications, while complying with the most rigorous quality requirements and changes in standards.

CROUZET IS A MEMBER OF THE FRENCH RAILWAY INDUSTRY (FIF) AND THE RAILWAY SUPPLY INSTITUTE (RSI).



PBX 
secure

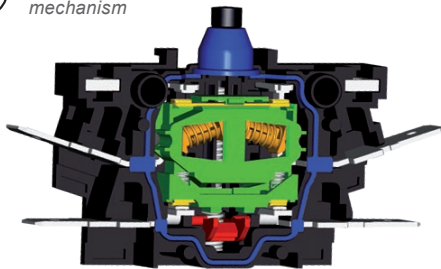


Positive opening switch

Designed to meet the requirements of the industrial and railway markets, PBX Secure positive opening switches resist severe environments over long periods.



Positive opening mechanism



A RELIABLE MECHANISM

The PBX positive opening mechanism, which has been patented and tested (EP 11227362), conforms to standard IEC 60947-5-1 appendix K.



PBX Secure switches have been approved by the SNCF for railway use. (document reference: 10-5312 235)

CHARACTERISTICS

- › Positive opening changeover contacts NO/NC, electrically isolated (SPDT-form Zb)
- › Fire/smoke resistant EN 45545
- › IP40 or IP67 / IP65 versions
- › Operating temperature -50 °C to +85 °C
- › Long overtravel beyond positive opening position
- › Standard versions or Dual-current (gold plated contacts)

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