



Railways

DETECTION, SWITCHING & MOTION CONTROL SOLUTIONS

ABOUT CROUZET

Crouzet is an independent company **manufacturing mechatronic components for demanding applications in Aerospace & Transportation, Energy, Building and Machinery Industry.**

Crouzet provides **Switches and Sensors, Electromechanical Actuators, Electrical Protection Equipment, Cockpit Controls, Automation Controllers and Relays, and Instrumentation Services.**

Since 1921, Crouzet has a heritage of close collaboration with customers in the development of products, from standard components to fully customized solutions.

Crouzet's customers and partners can rely on our teams worldwide to always meet and often exceed their expectations. Driven by innovation, our experts are focused on designing and delivering the right product for the right application.

Crouzet is your trusted partner of choice to face industrial challenges of today and tomorrow.

WORLDWIDE PRESENCE



INNOVATIVE SOLUTIONS FOR INCREASED SAFETY

Technology is an important element in improving rail safety. Our electromechanical solutions are designed by using the latest technology for applications where failure is not an option.

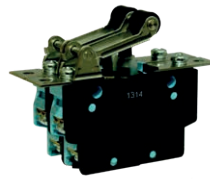
DETECTION SWITCH

► PBX SWITCH

The PBX is a safety switch which guarantees the forced opening of NC contacts in the event of a short circuit and/or welding due to an overcurrent.



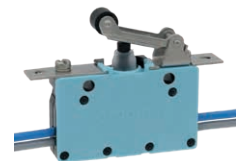
In-line quick-connect terminals



Two-pole DPDT assembly with linked levers



Wires output on bottom



Wires output on left and right

Why choose PBX switch ?

- › High reliability
- › Long overtravel for easy installation
- › Numerous combinations possible thanks to large range of variants and accessories
- › Large adaptation capabilities for specific applications (low & high current)
- › Extended mechanical & electrical life

GET MORE INFORMATION



MOTION CONTROL

► DCmind BRUSH & BRUSHLESS MOTORS

Crouzet offers a comprehensive range of DC brush or brushless motors and gearbox combinations designed to meet the customer's specific needs, as well as an easy-to-use dedicated software for application set-up.



Why choose our DC motors ?

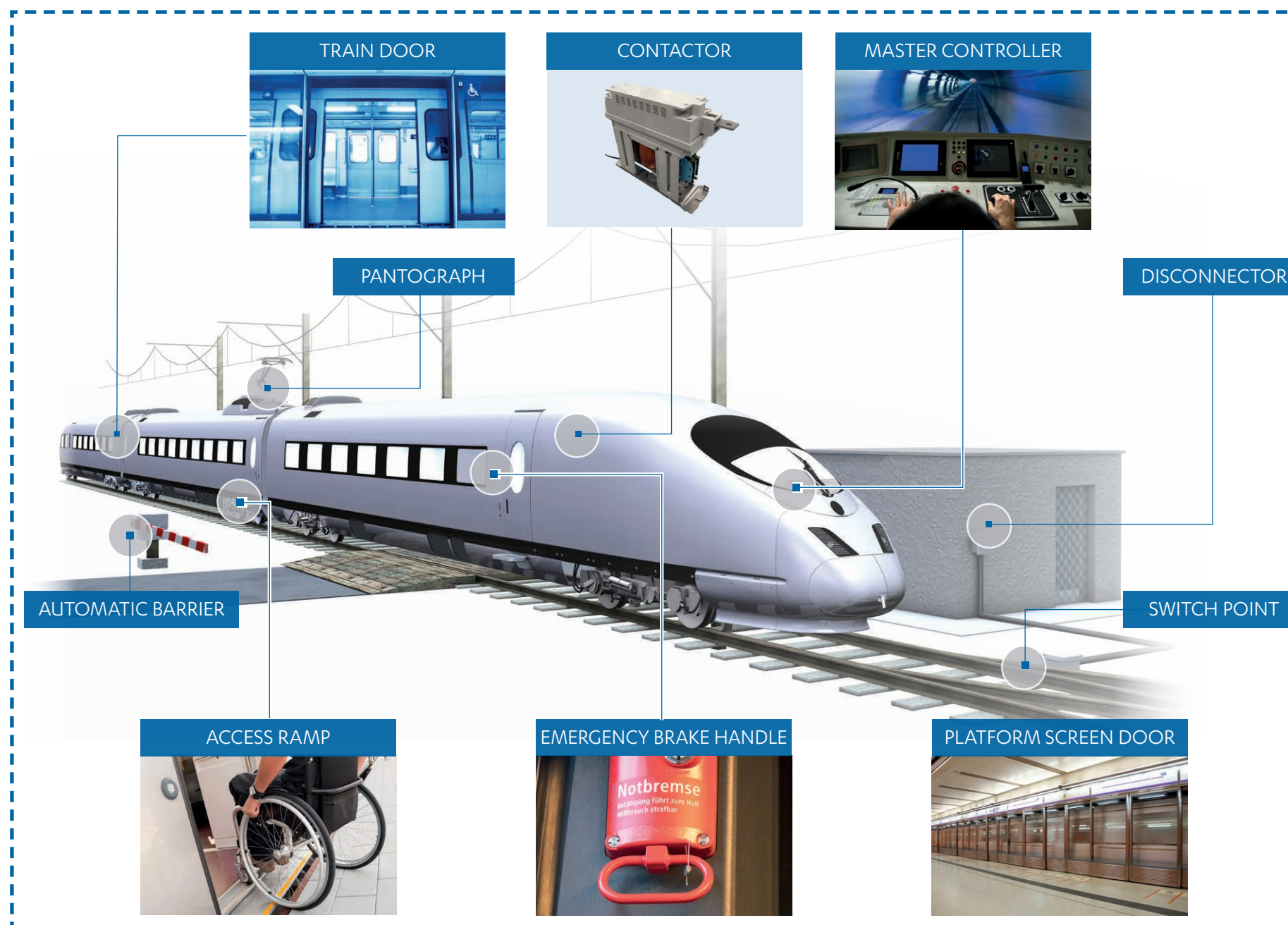
- › Complete all-in-one solution (motor + gearbox + electronics)
- › Adjustable closing force
- › Integrated security function to enable passengers to quickly leave the train in emergency case
- › Small size for space-restricted applications
- › Reduced maintenance

GET MORE INFORMATION



CROUZET IN THE RAILWAY SECTOR

Actively involved in the railway industry for over 50 years, Crouzet has built up a solid reputation as a reliable manufacturer of safety critical components for various rolling stock segments and some fixed installations.



CUSTOMER BENEFITS

Safety & Security

- › Robust products compliant to railway standards & approved to customers' specification
- › Harsh environment resistance & long operating life
- › Custom adaptation center for tailor-made solutions

Norms



Efficiency & Cost-Effectiveness

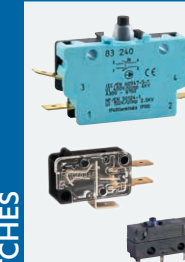
- › Global solutions of detection, switching, motion & remote control from one supplier
- › Reduced maintenance thanks to easy-integration, low-noise & low-vibration motors
- › Worldwide presence with European & Asian production sites

Proven Expertise

- › Extensive knowledge of railway applications through partnerships with the key players – Alstom-Siemens, Bombardier, CRRC, Fuji, Hitachi, Kangni, Knorr-Bremse Group, Secheron, Vossloh, Wabtec Group...
- › Best practices shared
- › Member of French Railway Industry (FIF) & Railway Supply Institute (RSI)



Microswitches



- › Largest range of the market
- › Ratings from 1 mA to 16 A / AC or DC
- › Tag terminals or lead/cable output
- › IP40 to IP69 protection
- › Changeover SPDT with separate NO/NC circuit
- › Positive opening operation of NC contacts
- › Wide range of actuators and mounting accessories
- › Long life up to 10 M cycles

Limit Switches



- › Robust construction with metal housing
- › Ratings from 1 mA to 10 A / AC or DC
- › Cable output, halogen free on request
- › IP66 to IP69 protection
- › Changeover SPDT with separate NO/NC circuits
- › Positive opening operation of NC contact
- › Wide range of actuating heads
- › Long life up to 10 M cycles

DCmind Brushless Motors



- › Large range up to 600 W (nominal power) and 6 Nm (peak torque)
- › Integrated electronics
- › User-friendly software: DCmind soft + CANopen with expert & applicative programs
- › CANopen available, other communication buses on demand
- › Encoder 4096 position per turn, other encoder option on demand
- › IP54, up to IP65, IP67 & IP69 (please contact us)

DCmind Brush Motors



- › Exceptionally quiet: 35 dBA
- › Service life up to 24,000 hours at no-load
- › 5000 hours at rated load
- › More than 80 % efficiency
- › Output power up to 104 W
- › IP65, up to IP67 & IP69 (please contact us)

Gearboxes



- Planetary**
 - › Max torque 120 Nm
 - › Ratios 5 to 393
- Worm**
 - › Max torque 10 Nm
 - › Ratios 5 to 100
- Parallel Shaft**
 - › Please contact us

Timers



- › Power supply from 12 to 240 V in one unit
- › 1 or 2 relays outputs 8 A, or high Power 16 A output
- › 17.5 & 22.5 mm DIN rail mount or 35 mm plug-in
- › Recognized quality and reliability ensures the correct operation of equipment

Logic Controllers



- › Resin protected board
- › 12 to 40 I/Os
- › Digital and analog inputs
- › Vibration resistant
- › Extended temperature range (+70°C)
- › Outputs via removable connectors
- › IP50 seal (connectors)
- › DB 9-pin programming port via standard RS 232 cable

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