

Switches and Sensors Product Selection Guide



■ Microswitches



■ Limit Switches



■ Trim Switches and
Proximity Sensors

www.crouzet.com



Who are we?



Founded in 1921, Crouzet has earned a respected reputation for providing snap-action technology solutions to a wide range of industries. Its extensive product range includes high performance micro, limit, trim and proximity switches for precision switching and detection. To ensure optimum quality, all components are manufactured at facilities in compliance with EN 9100, ISO 9001, ISO 14001, ISO/TS 16949 and ISO 17925 standards. Crouzet is committed to supporting a greener environment by utilizing materials and processes that are environmentally friendly.

Crouzet is a Custom Sensors & Technologies (CST) brand.

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 including:

- *Valves and actuators*
- *Nuclear*
- *Electrical switchgears*
- *Railway*
- *Specialty vehicles*
- *Aerospace and defense*

Mission



























































































































































Crouzet has become well-known for customizing products to meet unique customer needs while complying with the most rigorous quality demands. The resulting product solution optimizes both technical features and cost. This is made possible with Crouzet's broad selection of fully featured standard products and expert capabilities in not only adapting these products to match exacting specifications, but also in developing completely customized designs. From standard products enhanced with factory mounted accessories and auxiliaries to fully, built-to-order, customized products, Crouzet can meet your requirements.



History in the USA

Crouzet started operations in the United States in 1978, with worldwide headquarters in France. That presence has been reinforced with major acquisitions and the incorporation of Custom Sensors & Technologies in 2005. Crouzet's USA Switches and Sensors division is based in Illinois. With an extensive network of Regional Sales Engineers, Application Engineers, Partners and US based warehouse, Crouzet is well equipped to service customers throughout the United States, Canada and beyond.

Microswitches and Limit Switches

Microswitches											
Miniature						Subminiature					
											
Part Number	PBX 83240	83139	83123	V3S 83169	83154	83106	V3 83160/260 83161/261	V4S 83180	83133	V4 83170/270	V4 83170/270
Premium features											
Max Rating @ 250 Vac (A)	 10A	 6A	 5A	 8A	 5A	 5A	 25A	 10A	 5A	 12A	 12A
Low Level version	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)	 I(mA)
Sealing level	 IP67	 IP67	 IP66 IP69K	 IP67 IP69K	 IP67 IP69K	 IP67 IP69K	 IP67 IP69K	 IP67 IP69K	 IP67 IP69K	 IP67 IP69K	 IP67 IP69K
Double break	 Zb*	 Za*	 Za*	 Za*	 Za*	 Za*	 Za*	 Za*	 Za*	 Za*	 Za*
Bi-stable	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull	 Push Pull
High temperature (> 257°F)	 > 257°F	 > 257°F	 > 257°F	 > 257°F	 > 257°F	 > 257°F	 392°F	 392°F	 392°F	 392°F	 392°F
Low temperature (< -40°F)	 < -40°F	 -58°F	 -58°F	 -58°F	 -58°F	 -58°F	 -58°F	 -58°F	 -58°F	 -58°F	 -58°F
Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action	 Direct Opening Action
High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout	 High DC breaking / Magnetic Blowout
Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof	 Explosion-proof
Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified	 Nuclear certified
High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi	 High Pressure Environment Up to 87 psi
UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval	 UL / cUL approval

Za* : Double gap changeover contact element with 4 terminals. The contacts have the same polarity.

Zb* : Double gap changeover contact element with 4 terminals.

Proximity Sensors

Crouzet provides a complete range of proximity sensors with standard industrial features to high level performance features:

- 2 or 3 wire configuration
- 2 parts sensors integration with remote electronics
- MTBF: 300,000 hours in operation
- Temperature range: -85°F/+257°F
- Watertight or hermetic versions
- High pressure operation



Crouzet also provides capacitive and photoelectric sensors

The two moving contacts are electrically separated.

Crouzet offers Trim Switches with different button shapes, a variety of electrical configurations, and optional waterproofing. These products are certified for aerospace and military applications.

- Unipolar or bipolar
- 2, 4, or 5 way
- Single or separate common
- Temperature range: -67°F to +185°F
- Waterproof option



Focused on premium value offers and committed to excellence, CST, with more than 4,300 employees worldwide and sales of \$571M US in 2010, is the dependable and adaptable partner for the most demanding customers.

A world map with a blue background, showing the locations of Crouzet's production and sales subsidiaries. The map is centered on the Atlantic Ocean, with the Americas on the left and Europe and Africa on the right. The map is overlaid with a grid of latitude and longitude lines. The locations are marked with colored dots: blue for production and red for sales subsidiaries. The legend in the bottom right corner indicates that blue dots represent 'Production' and red dots represent 'Sales subsidiaries'. The Crouzet logo is visible in the bottom right corner.

Location	Type
France (Paris area)	Production
France (Lyon area)	Production
France (Marseille area)	Production
France (Nantes area)	Production
France (Strasbourg area)	Production
France (Toulouse area)	Production
France (Bordeaux area)	Production
France (Nîmes area)	Production
France (Montpellier area)	Production
France (Clermont-Ferrand area)	Production
France (Lille area)	Production
France (Rennes area)	Production
France (Brest area)	Production
France (Dijon area)	Production
France (Besançon area)	Production
France (Grenoble area)	Production
France (Annecy area)	Production
France (Chambéry area)	Production
France (Valence area)	Production
France (Aix-Marseille area)	Production
France (Nice area)	Production
France (Cannes area)	Production
France (Menton area)	Production
France (Cassis area)	Production
France (Arles area)	Production
France (Avignon area)	Production
France (Orange area)	Production
France (Valenciennes area)	Production
France (Lambersart area)	Production
France (Roubaix area)	Production
France (Tourcoing area)	Production
France (Wattrelos area)	Production
France (Mouscron area)	Production
France (Somain area)	Production
France (Aulnoy-lez-Val d'Aire area)	Production
France (Val d'Aire area)	Production
France (Lannoy area)	Production
France (Lomme area)	Production
France (Roubaix area)	Production
France (Tourcoing area)	Production
France (Wattrelos area)	Production
France (Mouscron area)	Production
France (Somain area)	Production
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France (Val d'Aire area)	Production
France (Lannoy area)	Production
France (Lomme area)	Production
France (Roubaix area)	Production

- Sales subsidiaries



Custom Sensors & Technologies (CST) is a specialist in sensing, control and motion products.

Through its brands BEI Kimco, BEI Sensors, BEI PSSC, Crouzet, Crydom, Kavlico, Newall and Systron Donner, CST offers customizable, reliable and efficient components for mission-critical systems in Industrial, Aerospace & Defence, and Transportation markets.

Focused on premium value offers and committed to excellence, CST, with more than 4300 employees worldwide and sales of \$571M US in 2010, is the dependable and adaptable partner for the most demanding customers.

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