

# **OVERVIEW**

# **SWITCHES & PROXIMITY SENSORS**



MICROSWITCHES
LIMIT SWITCHES
MANUALLY OPERATED SWITCHES
PROXIMITY SENSORS

# **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

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## **MICROSWITCHES AND LIMIT SWITCHES**

		MICROSWITCHES													LIMIT SWITCHES								
	SUB-SUBMINIATURE			SUBMINIATURE				MINIATURE			SPECIAL			STANDARD		SPECIAL			HARSH ENVIRONMENT			SEAT SWITCHES	
All products are snap-action switches			77 T						9 543					PARTIES CO.	Common Co						SEE	Q.	
Series	V5S 8 <b>320</b>	83228 83229	V5D 83194 83141	V4/V4D 83170 8327	V4S 8318	83132 83133 83134	83151 83560	V3/V3D 83161/160 8326	V3S/V3DS 83169 8329	83139	PBX 8324	83106/109 83111/112 83154	83123	8387 8388	8383 8384	83589	83731 83732 83733	83777 83778	83770 83771	8399Ex	8399Nuc	839921**	
Max Rating @ 250 V∼	4 A	5 A	5 A	12 A	10 A	6 A	5 A	25 A	10 A	6 A	10 A	16 A	10 A	10 A	10 A	8 A	10 A	4 A	4 A	1 A	1 A	4 A	
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)	I(mA)		I(mA)		I(mA)		I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	
High DC rating / Magnetic Blowout								4				4											
Double break						Za*				Za*	Zb*	Za*		Zb*	Za*								
Positive opening operation																							
Bistable version (maintained action)						Push					Push **	Push											
Sealing level	IP67 IP69				IP67 IP69		Gas tight Hermetic		IP67 IP69	IP66 IP67	IP65 IP67		IP66 IP67 IP69	IP66 IP67 IP69	IP66	IP66 IP67 IP69	IP66 IP69	IP66 IP68 (4m) IP69	IP66 IP68 (18m) IP69	IP66 IP67 IP69	IP66 IP68 (18m) IP69	IP67	
High temperature (above 125 °C / 257 °F)		+140 °C +284 °F	+150 °C +302 °F	+150 °C +302 °F		+150 °C +302 °F	+250 °C +482 °F	+200 °C +392 °F											+250 °C +482 °F	+200 °C +392 °F	+250 °C +482 °F		
Low temperature (below -40 °C / -40 °F)		-55 °C -67 °F	-55 °C -67 °F				-55 °C -67 °F	-60 °C -76 °F			-50 °C -58 °F							-55 °C -67 °F	-55 °C -67 °F		-55 °C -67 °F		
Explosive atmospheres							<b>E</b>			<b>(E)</b>									<b>(E)</b> **	<b>(E)</b>			
Irradiated environment			**			**	**											**	**		*		
High pressure environ- ment up to 6 bar							×												×	×	×		
Approvals NF/ENEC	**		**	<b>NF ₹</b> 08	<b>₽</b>	**			**														
UL	2U <b>R</b> 3	c <b>AL</b> us	<b>₽1</b> us <b>(27)</b> (2)	<b>₩</b> us	2 <b>42</b> US	<b>₽</b> UR 3	<b>(1)</b>	2U P3	<b>₽</b> ∪s <b>(2)</b>	<b>₽ ₽ ₽ ₽ 2 ₽ 2 • • • • • • • • • •</b>	2 <b>42</b> US	<b>€ ₹1</b> us <b>((C)</b>	<b>(1)</b>	CUL US US	<b>(10)</b>	<b>((()</b>	<b>(10)</b>	**	<b>(1)</b>	<b>(C)</b>	<b>(1)</b>		
EAC		ERC	EHE	ERC	ERC	EHC	ERC	EAC	EHC	EAC	EAL	EHE	EHE	ERC	EAC	EHE	EHE	EAC	ERC	w.	(m)		

<sup>\*</sup> Za: NO and NC circuits must be used at same polarity.

## **MANUALLY OPERATED SWITCHES**

Crouzet offers a wide range of Pushbuttons, Toggles, Rockers, Triggers, Thumbsticks/Trim/Multiway and Thumbwheel/Selector switches for industrial use as well as for high spec applications:

- Momentary and/or maintained action
- > 1 to 4-pole snap-action configurations
- Ratings from 1 mA 5 V— to 20 A 250 V $\sim$  / 5 A 250 V—
- > Protection degree: from IP40 to IP52
- Temperature range: from -60 °C to +125 °C /-76 °F to +257 °F
- > Mechanical life up to 10 million cycles



## **PROXIMITY SENSORS**

Crouzet provides a complete range of Proximity Sensors with standard industrial features to high level performance features:

- > 2 or 3 wires configuration
- > 2 parts sensors integration with remote electronics
- MTBF: 300,000 hours in operation
- ) Temperature range: -65 °C to +125 °C / -85 °F to +257 F
- Watertight or hermetic versions
- > High pressure operation



Zb: NO and NC circuits are electrically separated, and can be used at opposite polarities.

<sup>\*\*</sup> Consult us

# ADAPTATION WHEEL

To meet market expectations and provide customers with the right solutions within the shortest timeframes, Crouzet has structured its processes around the different types of products available: standard products, adapted products or customers specific customized products.

Introducing the adaptation wheel...

# SPECIAL PRODUCT

From the very start of a project, Crouzet Switches' experts work closely with your teams to develop the specifications. All our design, industrialization and approval expertise go into developing detection solutions that are tailored to your requirements.



#### **STANDARD PRODUCT**

A full range of microswitches, limit switches, manually operated switches and sensors, are immediately available so that you can design your system as quickly as possible.





Complete coordination between your project teams and our specialists, these adapted products have exactly the right levels of performance and functionality you need for your applications.





PRODUCT WITH ADDED VALUE

All our standard products can have additional factory-mounted auxiliaries or accessories, including connectors, leads, special terminals, fixings, levers, etc. Seamless integration into your equipment means you benefit from simpler logistics and optimum installation reliability.



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