

LIMIT SWITCHES SELECTION GUIDE

		STANDARD					SPECIAL				HARSH ENVIRONMENT				PANEL MOUNT / DOOR SWITCHES				SEAT SWITCHES								
SNAP-ACTION SWITCHES																											
Approx. body size (mm)		49x30x16	49x39x16	60x27x25	73x56x36	51x87x33	64x25x25	49x41x22	25x31x12	32x24x13	min. Ø 17x40		min. Ø 14x34		min. 100x30x30		Depending on type		38x35x11	27x17x12	40x29x15	43x32x17	Depending on type				
SERIES		8387	8388	8380	8384	8383	83589	83731 83732 83733	83581	83139 SP4257	83777 83778	83770 83771	8399 Ex	8399 Nuc	83523 83528	83161 SP9603/SP9604 + variants	83513 83522	83576	839921**								
TYPE		Prewired "EN" size	Prewired "US" size	Plastic housing	Standard	Adjustable fixing	Premium Plastic housing	Low profile housing	Miniature	Miniature Double break	Sealed	Hermetic	Explosive atmospheres	Nuclear applications	Latching + Auto reset	Extensive range	Double break Heavy duty	Self adjustable Large travel	Tilting actuator Customizable sensitivity								
ELECTRICAL	Max. ratings	@ 250 V ~ @ 24 V = @ 250 V =	10 A 10 A 0.8 A	10 A 10 A 0.8 A	6 A 6 A 0.5 A	10 A 10 A 0.6 A	10 A 10 A 0.6 A	8 A 8 A 0.3 A	10 A 10 A 0.3 A	8 A 8 A 0.3 A	6 A 6 A 0.5 A	4 A 4 A 0.15 A	4 A 4 A 0.3 A	1 A 3 A 4 mA 137 V =	1 A 3 A 0.2 A 137 V =	16 A 16 A 5 A	25 A 16 A 5 A	16 A 16 A 5 A	10 A 10 A 0.3 A	4 A 4 A 0.2 A							
	Assigned characteristics	AC15 DC13	A300 Q150	A300 Q150	B300 R300	A300 Q150	A300 Q150	B300 R300	B300 R300	B300 R300	B300 R300	C300	C300	C300	C300	A300 R300	A300 Q300	A300 Q300	B300 R300	C300 R300							
	Dual-current version	1 mA → 5 A	1 mA → 5 A	1 mA → 5 A			1 mA → 5 A		1 mA → 5 A	1 mA → 5 A		1 mA → 1 A	1 mA → 1 A	1 mA → 1 A	1 mA → 1 A	1 mA → 5 A	1 mA → 5 A	10 mA → 5 A	1 mA → 5 A	1 mA → 4 A							
	Thermal rating	Ithe	10 A	10 A	10 A	10 A	10 A	10 A	12 A	10 A	11 A	4 A	4 A	3 A	3 A	17 A	25 A	17 A	12 A	5 A							
	Insulation voltage	Ui	500 V	500 V	250 V	500 V	500 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V							
	Impulse withstand voltage	Uimp	2.5 kV	2.5 kV	2.5 kV	4 kV	4 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV							
	Circuit diagram																										
	Contact configuration (for 1 pole changeover/SPDT)		Form Zb (separated contacts)	Form Zb (separated contacts)	Form Za	Form Za	Form Za	Form C	Form C	Form C	Form Za	Form C	Form C	Form C	Form C	Form Za	Form C	Form Za	Form C	Form C							
	SPST-NC / SPST-NO versions		✓	✓				✓	✓	✓	✓				✓				✓								
	Multipole version				2 poles**			2 poles**		2 poles**	2 poles**	2 ; 3 poles	2 poles		2 poles	2 ; 3 poles	2 poles**	2 ; 3 poles		✓							
Positive opening operation																											
Housing material		Zamak	Zamak	Plastic	Zamak	Zamak	Plastic	Steel	Metal + Plastic	Metal + Plastic	Aluminium	Inox steel	Aluminium ; Bronze or Inox steel	Aluminium ; Bronze or Inox steel	Metal + Plastic	Metal + Plastic	Metal + Plastic	Plastic	Plastic								
Protection against electric shock		Class I	Class I	Class I Class II**	Class I	Class I	Class I Class II**	Class I	Class I Class II	Class I Class II	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class II	Class I Class II							
ENVIRONMENT	Degree of protection	Solid objects + water	IP66 IP67 IP69	IP66 IP67 IP69	IP65	IP66 IP67 IP69	IP66 IP67 IP69	IP66 IP67 IP69	IP67 IP69	IP66 IP67	IP66 IP68 (4 m) IP69	IP66 IP68 (18 m) IP69	IP66 IP67 IP69	IP66 IP68 (18 m) IP69	IP40	IP40	IP40	IP40	IP67								
	Mechanical impact		IK07	IK07	**	**	**	**	**	**	**	**	**	**	**	**	**	**	IK04	**							
	Operating temperature		-40 °C +70 °C	-40 °C +70 °C	-30 °C +70 °C	-40 °C +70 °C	-40 °C +70 °C	-40 °C +85 °C	-40 °C +70 °C	-40 °C +105 °C	-40 °C +105 °C	-55 °C +125 °C	-55 °C +250 °C	-40 °C +200 °C	-55 °C +250 °C	-40 °C +125 °C	-60 °C +200 °C	-40 °C +125 °C	-40 °C +70 °C	-40 °C +85 °C							
	Mud / salt / dust / ice environment		✓	✓				✓																			
	Explosive atmospheres																										
Irradiated environment																											
High pressure environment																											
MECHANICAL	Min. Operating Force	Linear Rotary	10 N 0.15 Nm	10 N 0.15 Nm	10 N 0.07 Nm	1.5 → 15 N 0.2 Nm	1.5 → 15 N 0.2 Nm	10 N	6N ; 15 N	5 N	3.5 N	60 N	max. 6 bar 12 → 30 N	max. 6 bar 20 N 0.4 Nm	max. 6 bar 8 → 30 N 1.1 Nm	6 → 30 N	0.8 → 5 N	4 → 12 N	10 N	3 → 10 N							
	Total Travel	Linear Rotary	5 mm 70°	5 mm 70°	5 mm 60°	6 → 11 mm 60°	6 → 11 mm 60°	4.5 mm	4mm ; 6 mm	4mm ; 6 mm	4mm ; 6 mm	4.4 mm ; 6.7 mm	1.3 → 5.5 mm	5.5 mm 60°	2 → 4 mm 80°	6 mm	4 mm ; 6 mm	6 mm	10 → 25 mm	3 mm							
	Min. Overtravel		3 mm 35°	3 mm 35°	3.5 mm 45°	3.5 → 5 mm 35°	3.5 → 5 mm 35°	3.5 mm	2.5 mm ; 4 mm	2.5 mm ; 4 mm	2.5 mm ; 4 mm	3.2 mm ; 5.5 mm	1 → 5 mm	4 mm 40° → 50°	0.5 → 3 mm 70°	3 mm ; 3.5 mm	2.5 → 4 mm	4.5 mm	8 → 23 mm	2 mm							
	Min. Positive Overtravel		1 mm 10°	1 mm 10°	1.5 → 2 mm 15°											0.3 mm											
	Max. Differential Travel		0.7 ; 1.3 mm 9° ; 17°	0.7 ; 1.3 mm 9° ; 17°	0.5 mm 8°	0.8 → 2 mm 10°	0.8 → 2 mm 10°	0.2 mm	0.25 mm	1 mm	1 mm	0.2 mm ; 0.5 mm	0.05 mm ; 0.15 mm	0.05 mm 2°	0.05 → 1 mm 2°	1 mm	0.4 → 1.2 mm	0.9 mm	1 mm	0.06 → 0.20mm							
	Mechanical life (cycles)		10 M	10 M	10 M	10 M	10 M	10 M	1 M	0.1 M	0.1 M	0.05 M	0.1 M	0.1 M	0.1 M	10 M	0.1 M	1 M	0.1 M	1 M							
	Operating device	Plunger	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							
	For linear mvt	Plunger with roller	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							
		Lever with roller				✓	✓																				
		Adjustable lever with roller				✓	✓																				
	Adjustable lever + idle-return roller				✓	✓																					
For rotary mvt	Roller lever	✓	✓	✓	✓	✓							✓	✓													
Multi-direction	Flexible rod			✓	✓	✓																					
	Plunger with ball	✓	✓				✓		✓	✓	✓	✓															
Fixing means	Plain holes	Ø 4	Ø 5	Ø 4	Ø 5									Ø 3 - 3.5 - 4 M5	Ø 3 M5	Ø 3 M3		M3	✓								
Non-adjustable	Tapped holes																										
Adjustable	Snap-in																		28 x 14 cut - out								
	Elongated holes					6 x 21 mm																					
Connections	Threaded barrel	M12 x 0.75	M12 x 0.75	M16 x 1			M16 x 1	M16 x 1	M10 x 0.75	M10 x 0.75	M12 x 0.75 ; M16 x 1	M8/M12/M14 x 0.75		M12 x 0.75		M10 x 0.75	M12 x 0.75										
Terminals	Screw			✓	✓	✓									✓	✓	✓	✓	✓								
	Solder			✓	✓	✓									✓	✓	✓	✓	✓								
	Fast-on			✓	✓	✓									✓	✓	✓	✓	✓								
Pre-wired	Wires	**	**	**			**		✓	✓	✓	✓	✓	✓				✓	✓								
	Cable	✓	✓	**			✓	✓	✓	✓	✓	✓	✓	✓					✓								
	Integral connector	✓	✓	✓							✓	✓	✓	✓					✓								
Approvals	UL																										
	CCC																										
	EAC																										



* Pending ** Consult us
 The features presented in this selection guide represent the extent of performance of each Limit switch Series. Not all combinations of characteristics are feasible at an individual product.
 Please refer to relevant product sheet or consult our customer service. For more information see also the "Basic technical concepts".
 Note: data contained in product sheets dated 2016 and before may differ from the features shown in this selection guide.
 Update is in progress. Please contact us for confirmation.

Warning:
 The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. Crouzet Automatismes SAS and its subsidiaries reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.