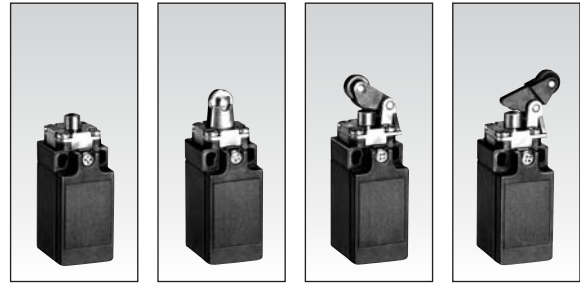


Miniature Industrial Limit Switches Series 83 852 / 83 853 EN 50047



Conform to the following standards :

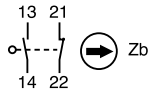
IEC 536-1, IEC 947-5-1,
CSA C22.2 No. 14, EN 50047,
EN 60947-5-1, EN 60204-1,
NFC 20030 class I for 83 852
class II for 83 853
UL 508, VDE 0660/200.

Degree of protection : IP 66
Version : 1 pole

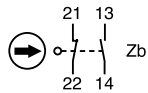
Function : Four-terminal double break contact element (form Zb) with positive opening NC contacts.
The two moving contacts are electrically isolated from one another.

Principle :

Independent snap action contact
1 NO + 1 NC



Dependent action
1 NO + 1 NC



Break Before Make

Electrical characteristics

Assigned insulation voltage (Ui) :
500 V
Thermal rating (Ith) : 10 A
Use category : A300 - Q300
AC15 = 6A/250 V - 1.9 A / 380 V
DC 13 = 3A/24 V

Short circuit test (under IEC 947.5.1 § 8.3.4)

- Current peak 1000 A at 250 V ~ 0.5 < cos φ < 0.7
- Short circuit protection (SCPD) : fuse 10 A gF
- Electrical protection by internal earth terminal (83 852)

Connections :

Saddle washer and M 3.5 screw
Max. wire cross-section : 2 x 1.5 mm²
or 1 x 2.5 mm²

Connection :

For 1/2" NPT

Approvals :

UL listed A300 - Q300 -
CSA A300 - Q300

Types

Thermoplastic case with double insulation and metal actuator head	Independent snap action NC + NO	83 853 001	83 853 501	83 853 101	83 853 201
	Dependent action NC + NO	83 853 011	83 853 511	83 853 111	83 853 211
Metal bodies and actuator heads	Independent snap action NC + NO	83 852 001	83 852 501	83 852 101	83 852 201
	Dependent action NC + NO	83 852 011	83 852 511	83 852 111	83 852 211

Control mechanisms - adjustable actuator heads 4 positions 90°

Steel plunger

Plunger with steel roller

Lever with plastic roller

Rotary head, momentary action to right and left ⁽¹⁾

With lever and plastic roller

Ø 22 offset 40

Ø 19 offset 53

Ø 50 offset 47

offset 53.5

With adjustable lever and plastic roller

Ø 22 offset 32.5 or 45

offset 46

Ø 50 adjustable offset 53.5 to 69.5

With adjustable polyamide rod actuator

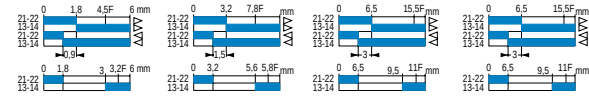
Flexible metal lever

⁽¹⁾ Action either right or left according to position of head

Sequence

Independent snap action

Dependent action



Positive break operation



Mechanical characteristics

Minimum operating force	N (oz.)	10 (35.3)	10 (35.3)	9 (31.7)	9 (31.7)
Minimum total travel force	N (oz.)	12 (42.3)	12 (42.3)	10 (35.3)	10 (35.3)
Minimum positive opening force	N (oz.)	25 (88.2)	25 (88.2)	20 (70.5)	20 (70.5)
Minimum operating travel	mm (in.)	5 (.2)	5 (.2)	5 (.2)	5 (.2)
Minimum positive opening travel	mm (in.)	6 (.24)	6 (.24)	6.5 (.247)	6.5 (.247)
Differential travel	mm (in.)	1.5 (.06)	1.5 (.06)	1.5 (.06)	1.5 (.06)
Max. total travel	mm (in.)	6 (.24)	6 (.24)	6 (.24)	6 (.24)
Mechanical life (millions of operations) mini.		15	15	15	15
Temperature Use	°C (°F)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)
limits Stored	°C (°F)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)
Degree of protection		IP 66	IP 66	IP 66	IP 66
Weight	Series 83 853 g (oz.)	90 (3.2)	100 (3.5)	100 (3.5)	105 (3.7)
	Series 83 852 g (oz.)	170 (6)	180 (6.3)	180 (6.3)	180 (6.3)

Other information

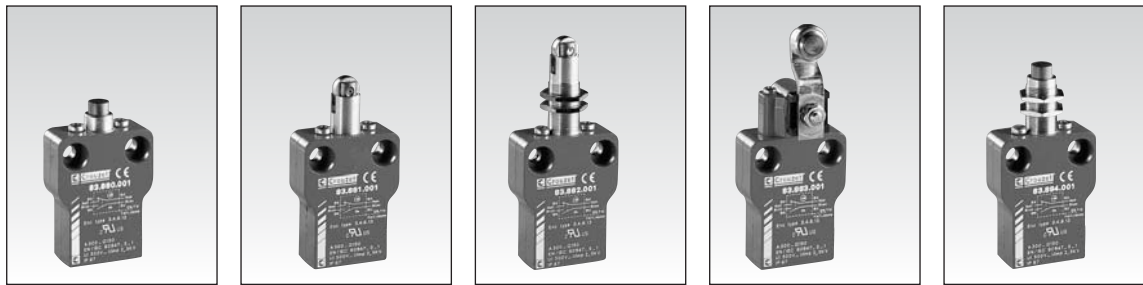
For other contact types and accessories or special modes of operation : please consult us.
For dimensions see page 3/38.

Replacement contact block

Part number	Configurations	Function
83157401	SPDT	<STD>
83157402	SPDT	Break before make
83157403	SPDT	Make before break
83157404	2 NO	DPST - Normally open
83157405	2 NC	DPST - Normally closed

Products and specifications subject to change without notice.

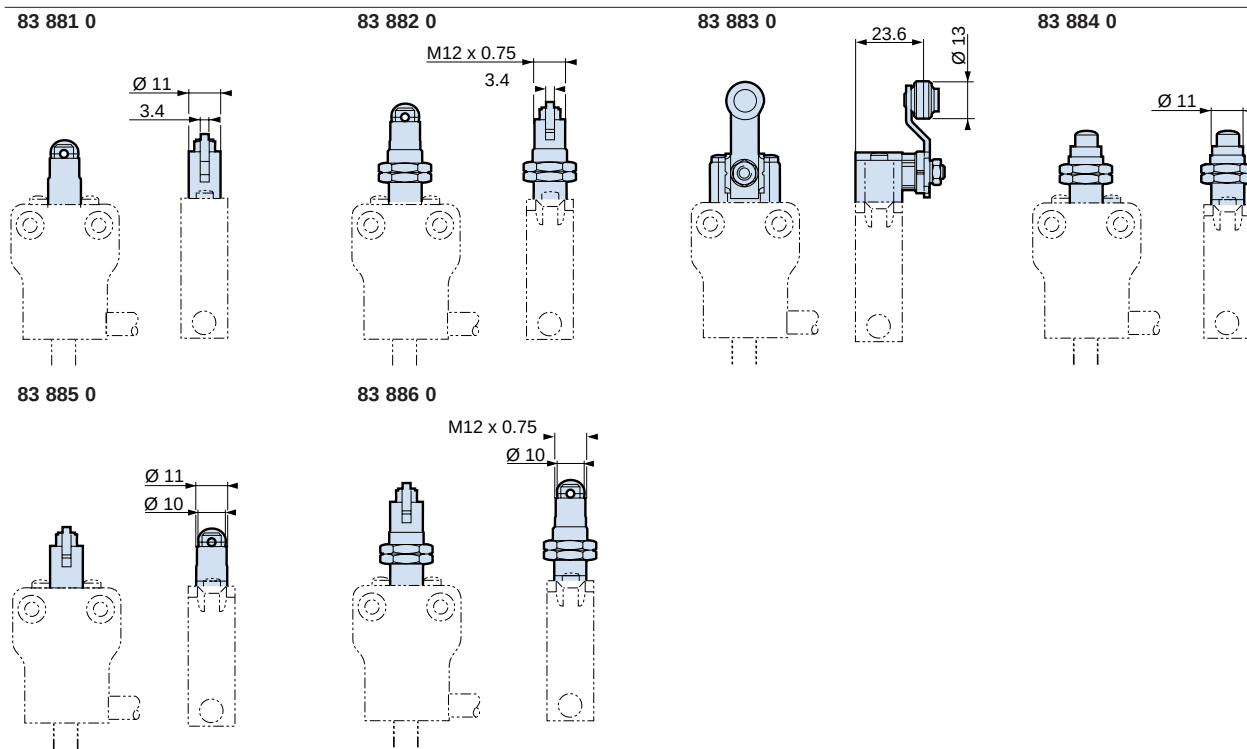
Order/Technical Support – Tel: (800) 677-5311 / FAX: (800) 677-3865 / www.crouzet-usa.com



83 880 0	83 881 0	83 882 0	83 883 0	83 884 0
83 880 102	83 881 102	83 882 102	83 883 102	83 884 102
83 880 103	83 881 103	83 882 103	83 883 103	83 884 103

36 (10)	36 (10)	36 (10)	22 in.oz. (15cmN)	36 (10)
108 (30)	108 (30)	108 (30)	52 in.oz. (35cmN)	108 (30)
100 (28)	100 (28)	100 (28)	22 in.oz. (15cmN)	100 (28)
10	10	10	10	10
10.3 (290)	10.4 (295)	11.1 (315)	10.3 (290)	10.9 (310)

BK-BK BN-BU	BK-BK BN-BU	BK-BK BN-BU	BK-BK BN-BU	BK-BK BN-BU
RP 18.4	RP 30.3	RP 43.6	RP 0°	RP 33.4
TP 16.6	TP 28.4	TP 41.7	TP 27°	TP 31.6
POP 14.4	POP 26.15	POP 39.45	POP 58°	POP 29.4
OL 13.3	OL 25.15	OL 38.45	OL 69°	OL 28.3



mm

To order, specify:

Standard products	2 Part number Example: Limit switch 83 881 102
Standard products, non stocked	1 Type Examples: Limit switch 83 881 003 ; cable length = 3 m - Limit switch 83 881 006 ; cable length = 6 m

Products and specifications subject to change without notice.

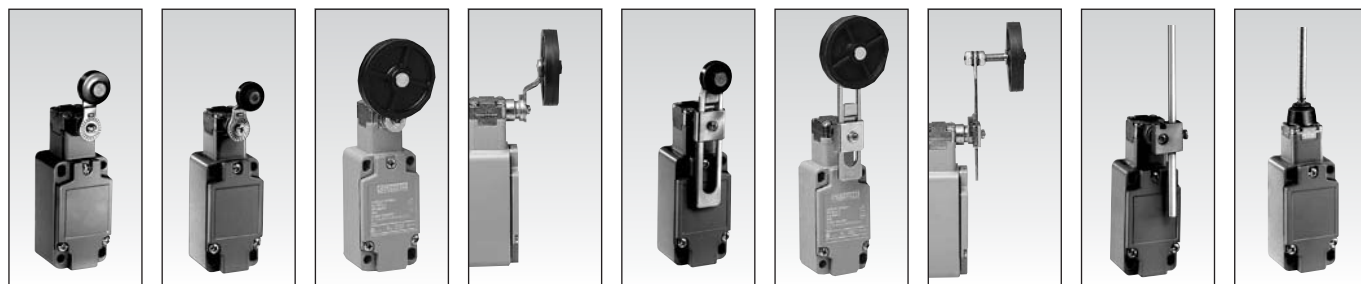
Order/Technical Support – Tel: (800) 677-5311 / FAX: (800) 677-3865 / www.crouzet-usa.com



1

83 853 301	83 853 302	83 853 305	83 853 306	83 853 303	83 853 307	83 853 308	83 853 304	83 853 601
83 853 311	83 853 312	83 853 315	83 853 316	83 853 313	83 853 317	83 853 318	83 853 314	83 853 611
83 852 301	83 852 302	83 852 305	83 852 306	83 852 303	83 852 307	83 852 308	83 852 304	83 852 601
83 852 311	83 852 312	83 852 315	83 852 316	83 852 313	83 852 317	83 852 318	83 852 314	83 852 611



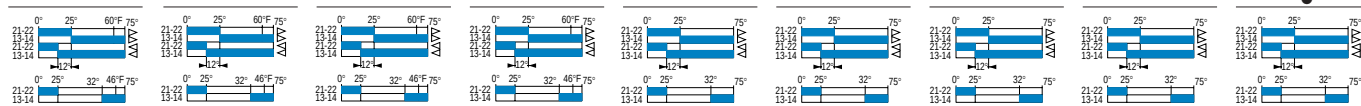


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83 862 311	83 862 312	83 862 315	83 862 316	83 862 313	83 862 317	83 862 318	83 862 314	83 862 611
83 862 301	83 862 302	83 862 305	83 862 306	83 862 303	83 862 307	83 862 308	83 862 304	83 862 601

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3

28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	3 (10.5)
37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	4.5 (15.8)
75cmN (106inoz)	75cmN (106inoz)	75cmN (106inoz)	75cmN (106inoz)	75cmN (106inoz)	75cmN (106inoz)	75cmN (106inoz)	75cmN (106inoz)	
30°	30°	30°	30°	30°	30°	30°	30°	30°
60°	60°	60°	60°	60°	60°	60°	60°	
20°	20°	20°	20°	20°	20°	20°	20°	20°
75°	75°	75°	75°	75°	75°	75°	75°	75°
15	15	15	15	15	15	15	15	15
-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)
-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)	-40+80(-40+176)
IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	IP 66
340 (12)	340 (12)	340 (12)	340 (12)	365 (12.8)	365 (12.8)	365 (12.8)	360 (12.7)	335 (11.8)

2

To order, specify :

Standard products	1 Part number Example : Limit switch 83 860 001
Standard products, non stocked	1 Type 2 Accessory Example : Limit switch 83 861 001 - Cover with status indicator 79 250 290

Products and specifications subject to change without notice.

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