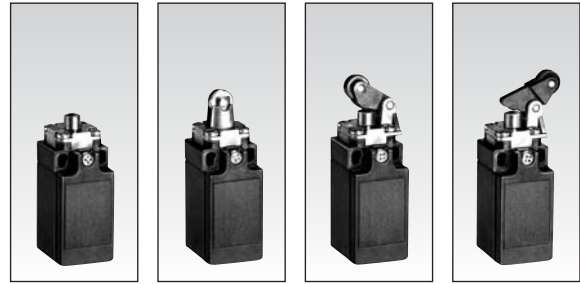


Miniature Industrial Limit Switches Series 83 852 / 83 853 EN 50047



Conform to the following standards :

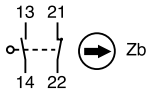
IEC 536-1, IEC 947-5-1, CSA C22.2 No. 14, EN 50047, EN 60947-5-1, EN 60204-1, NFC 20030 class I for 83 852 class II for 83 853 UL 508, VDE 0660/200.

Degree of protection : IP 66
Version : 1 pole

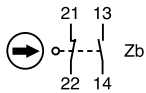
Function : Four-terminal double break contact element (form Zb) with positive opening NC contacts. The two moving contacts are electrically isolated from one another.

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

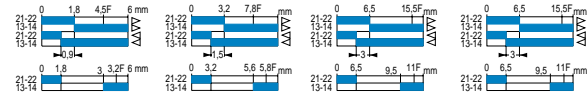
Types

	83 853 001	83 853 501	83 853 101	83 853 201
Thermoplastic case with double insulation and metal actuator head	Independent snap action NC + NO	83 853 011	83 853 511	83 853 111
Metal bodies and actuator heads	Dependent action NC + NO	83 852 001	83 852 501	83 852 101
	Independent snap action NC + NO	83 852 011	83 852 511	83 852 111
Control mechanisms - adjustable actuator heads 4 positions 90°	•	•	•	•
Steel plunger	•			
Plunger with steel roller		•		
Lever with plastic roller			•	
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

		83 853 001	83 853 501	83 853 101	83 853 201
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 limits	Use °C (°F) Stored °C (°F)	-25+80(-13+176) -40+80(-40+176)	-25+80(-13+176) -40+80(-40+176)	-25+80(-13+176) -40+80(-40+176)	-25+80(-13+176) -40+80(-40+176)
Degree of protection		IP 66	IP 66	IP 66	IP 66
Weight	Series 83 853 g (oz.) Series 83 852 g (oz.)	90 (3.2) 170 (6)	100 (3.5) 180 (6.3)	100 (3.5) 180 (6.3)	105 (3.7) 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

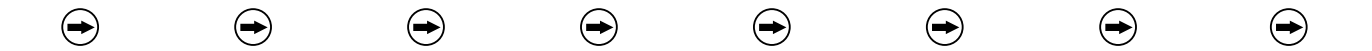
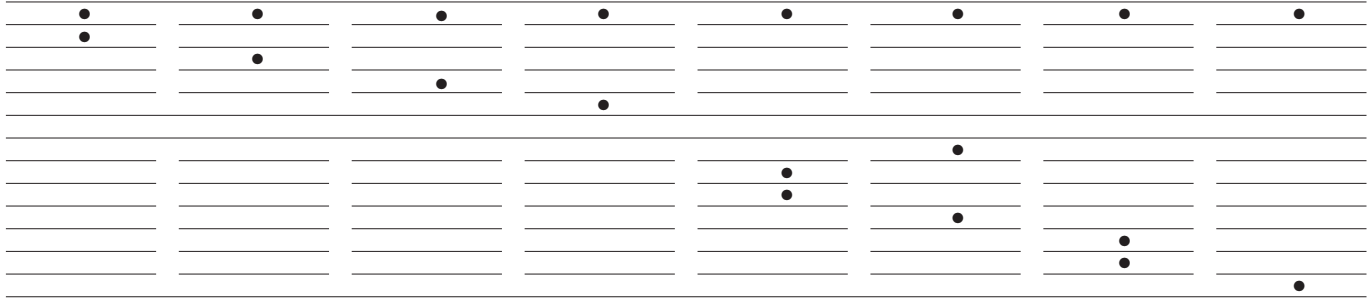
Part number	Configurations	Function
83157401	SPDT	<STD>
83157402	SPDT	Break before make
83157403	SPDT	Make before break
83157404	2 NO	DPST - Normally open
83157405	2 NC	DPST - Normally closed

Products and specifications subject to change without notice.

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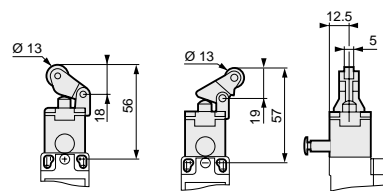


83 857 011	83 857 511	83 857 111	83 857 211	83 857 311 (Ø22)	83 857 312 (Ø19)	83 857 313 (Ø22)	83 857 318 (Ø50)
83 856 011	83 856 511	83 856 111	83 856 211	83 857 315 (Ø50)	83 857 316 (Ø50)	83 857 317 (Ø50)	83 857 318 (Ø50)
				83 856 311 (Ø22)	83 856 312 (Ø19)	83 856 313 (Ø22)	83 856 318 (Ø50)
				83 856 315 (Ø50)	83 856 316 (Ø50)	83 856 317 (Ø50)	83 856 318 (Ø50)

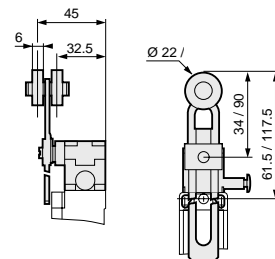


10	9	9	9	(28)	(28)	(28)	(28)
12	10	10	10	(37)	(37)	(37)	(37)
2.5	2.5	20	20	(75)	(75)	(75)	(75)
5	5	5	5	(30)	(30)	(30)	(30)
3.2	5.6	11	11	(46)	(46)	(46)	(46)
1.5	1.5	1.5	1.5	(20)	(20)	(20)	(20)
6	6	6	6	(75)	(75)	(75)	(75)
1	1	1	1	1	1	1	1
-20 +80	-20 +80	-20 +80	-20 +80	-20 +80	-20 +80	-20 +80	-20 +80
-40 +80	-40 +80	-40 +80	-40 +80	-40 +80	-40 +80	-40 +80	-40 +80
IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	IP 66
145/230	155/240	150/240	150/240	190/270	190/270	210/300	230/320

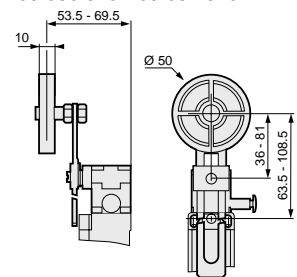
83 856 111 / 211 - 83 857 111 / 211



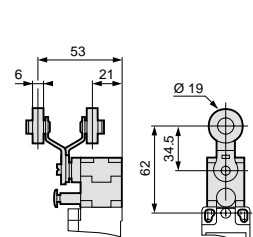
83 856 313 - 83 857 313



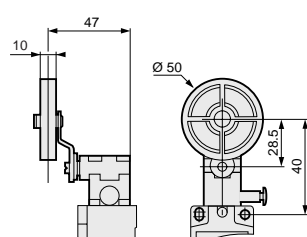
83 856 318 - 83 857 318



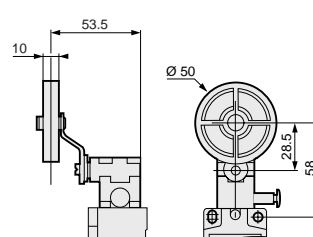
83 856 312 - 83 857 312



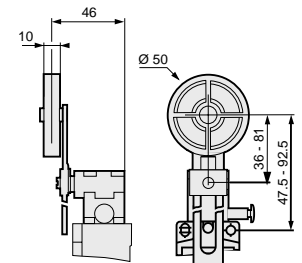
83 856 315 - 83 857 315



83 856 316 - 83 857 316

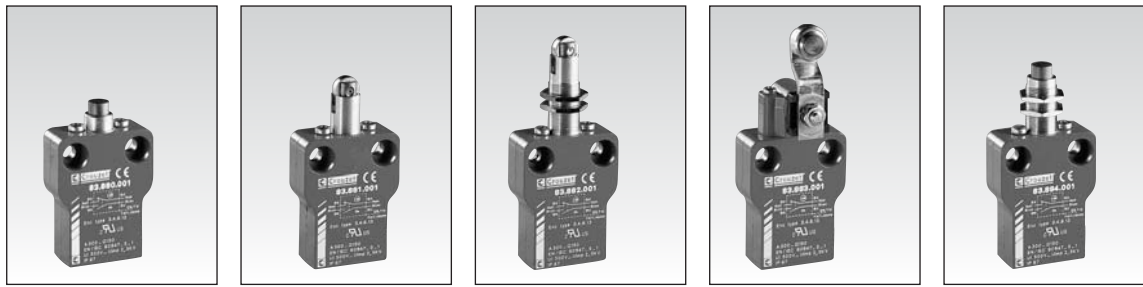


83 856 317 - 83 857 317



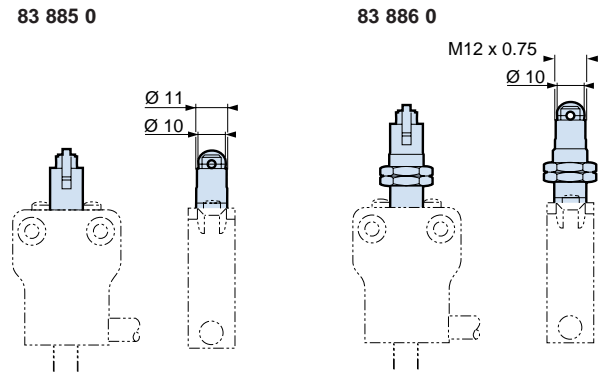
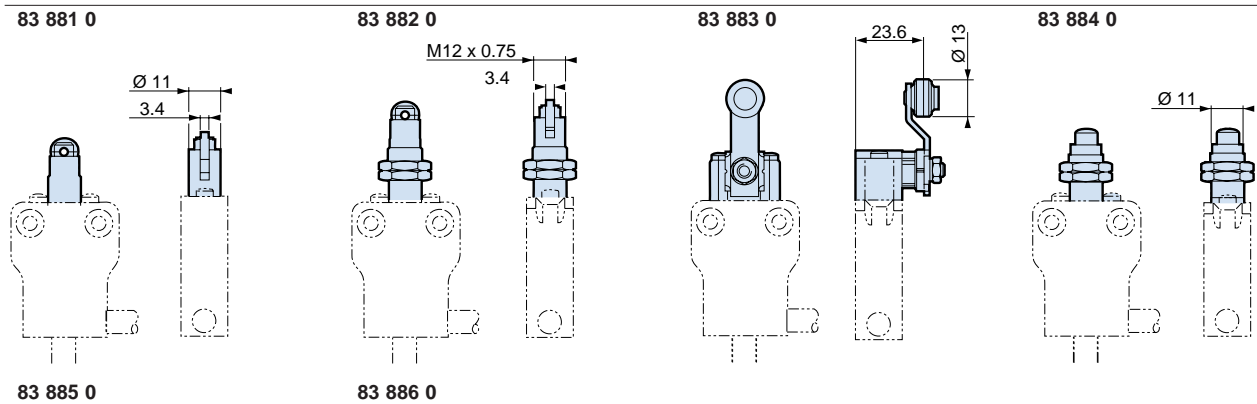
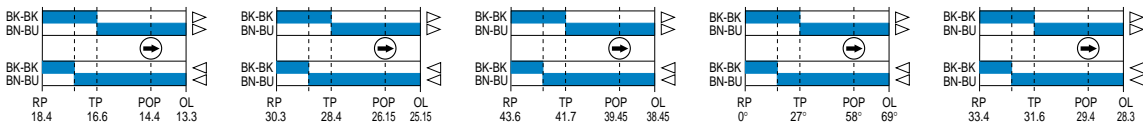
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83 880 0	83 881 0	83 882 0	83 883 0	83 884 0
83 880 102	83 881 102	83 882 102	83 883 102	83 884 102
83 880 103	83 881 103	83 882 103	83 883 103	83 884 103

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)



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

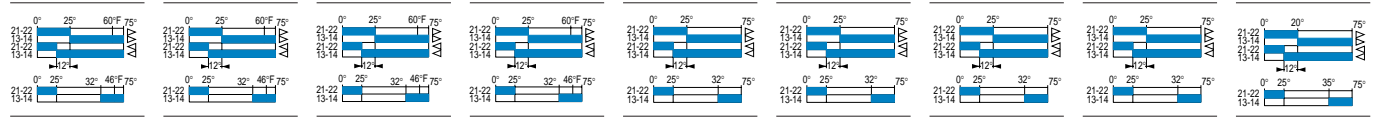
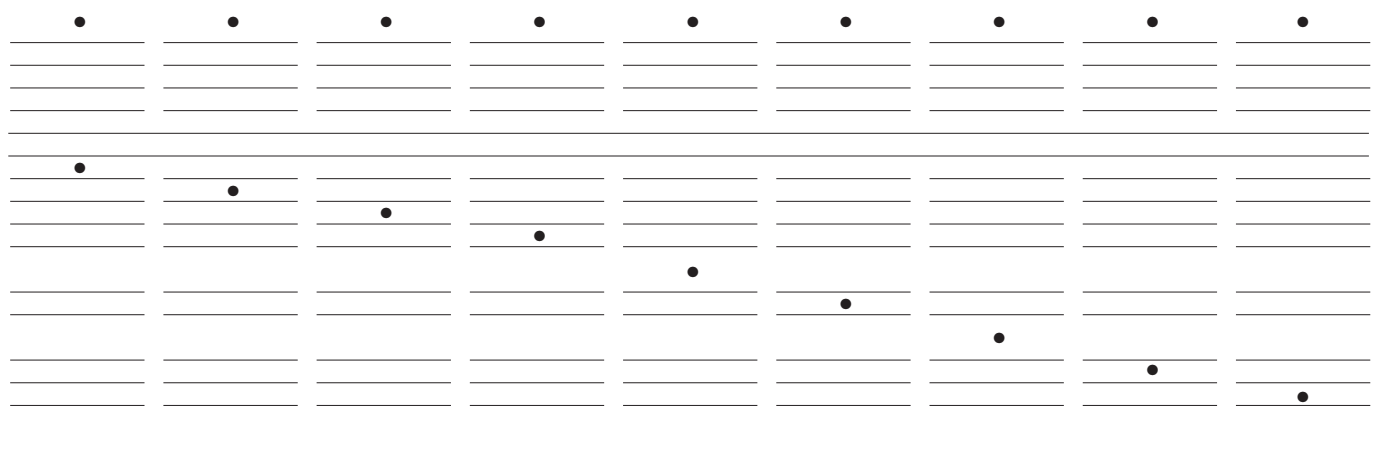
Products and specifications subject to change without notice.

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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



28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	28cmN (40inoz)	3 (10)
37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	37cmN (52inoz)	4.5 (16)
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
130 (4.6)	130 (4.6)	130 (4.6)	130 (4.6)	130 (4.6)	153 (5.4)	153 (5.4)	153 (5.4)	130 (4.6)
205 (7.23)	205 (7.23)	205 (7.23)	205 (7.23)	205 (7.23)	225 (7.93)	225 (7.93)	225 (7.93)	200 (7.1)

To order, specify :

1 Standard products
1 Standard products, non stocked

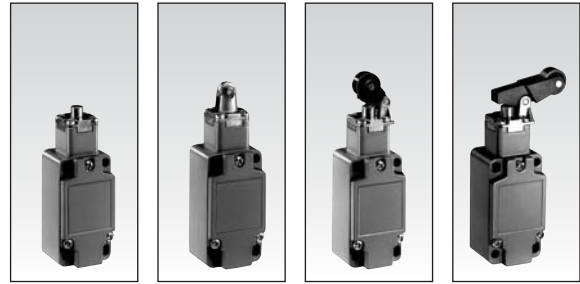
1 Part number
 Example : Limit switch 83 853 001

Products and specifications subject to change without notice.

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



Industrial Limit Switches Series 83 862 EN 50041

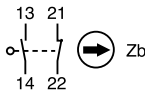


Conform to the following standards :
 EN 50041, IEC 947-5-1, VDE 0660/200
 UL 508, CSA C22.2 No.14
 IEC 536-1, EN 60204-1, NFC 20030
 class I

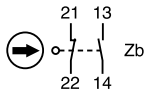
Degree of protection : IP 66

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

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

Connection :
 1/2" NPT

Approvals :
 UL listed A300 - Q300 -
 CSA A300 - Q300

Types

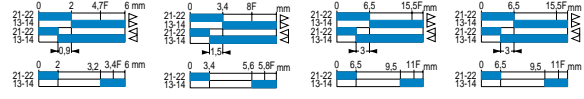
	83 862 011	83 862 511	83 862 111	83 862 211
Dependent action NC + NO	83 862 011	83 862 511	83 862 111	83 862 211
Independent snap action NC + NO	83 862 001	83 862 501	83 862 101	83 862 201
Control mechanisms - adjustable actuator heads 4 positions 90°	•	•	•	•
Steel plunger	•			
Plunger with steel roller		•		
Lever with vertical plastic roller			•	
Lever with lateral plastic roller				•

Rotary head, momentary action to clockwise and/or anti-clockwise (1)

	83 862 011	83 862 511	83 862 111	83 862 211
Ø 22 offset 43.5				
With lever and plastic roller				
Ø 19 offset 56				
offset 50.5				
Ø 50 offset 57				
With adjustable lever and plastic roller				
Ø 22 offset 36 or 48				
Ø 50 offset 49 adjustable offset 57 to 73				
With adjustable polyamide rod actuator				
Flexible metal lever				
Independent snap action				

Sequence

Dependent action



Positive break operation



Mechanical characteristics

Minimum operating force	N (oz.)	10 (35.5)	10 (35.5)	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 travel	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 (.26)	6.5 (.26)
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	g (oz.)	305 (10.76)	315 (11.11)	320 (11.28)	325 (11.46)

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

Accessories

Cover with status indicator (supplied loose)	24.30 V ~ ☐	79 250 290
	220 V ~	79 250 291

Replacement contact block

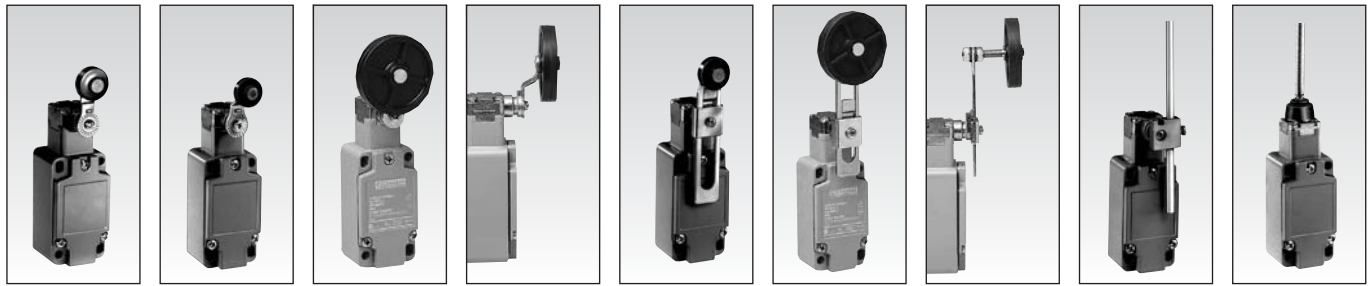
Part number	Configuration	Function
83157401	SPDT	<STD>
83157402	SPDT	Break before make
83157403	SPDT	Make before break
83157404	2 NO	DPST - Normally open
83157405	2 NC	DPST - Normally closed

Other information

For other contact types and accessories or special modes of operation : please consult us.
 For dimensions see page 3/39.

Products and specifications subject to change without notice.

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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

●	●	●	●	●	●	●	●	●
	●							
		●						
			●					
				●				
					●			
						●		
							●	
								●
➔	➔	➔	➔	➔	➔	➔	➔	➔

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 :	
<input type="checkbox"/> Standard products	1 Part number Example : Limit switch 83 860 001
<input type="checkbox"/> Standard products, non stocked	1 Type 2 Accessory Example : Limit switch 83 861 001 - Cover with status indicator 79 250 290