

050 Offset 46 Positive Break	Metal bodies and actuator head	Independent Snap NC+NO	83852307
050 Offset 46 Positive Break	Metal bodies and actuator head	Dependent Action NC+NO	83852317

Rotary Head, Momentary Action with Adjustable Lever and Plastic Roller 050
4 Positions - 90 degrees IP66

<u>Features</u>	<u>Housing</u>	<u>Action</u>	<u>Part Number</u>
050 Offset 53.5 to 69.5 Positive Break	Thermoplastic case with double insulation and metal actuator head	Independent Snap NC+NO	83853308
050 Offset 53.5 to 69.5 Positive Break	Thermoplastic case with double insulation and metal actuator head	Dependent Action NC+NO	83853318
050 Offset 53.5 to 69.5 Positive Break	Metal bodies and actuator head	Independent Snap NC+NO	83852308
050 Offset 53.5 to 69.5 Positive Break	Metal bodies and actuator head	Dependent Action NC+NO	83852318

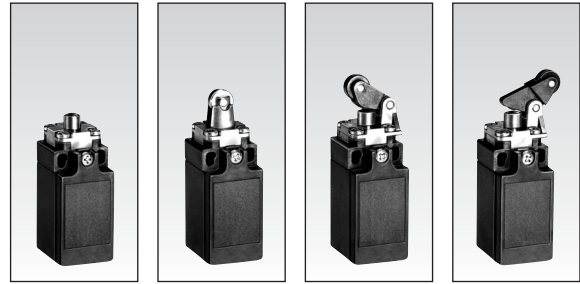
Adjustable Rod Actuator, Momentary Action 4 Positions - 90 degrees IP66

<u>Features</u>	<u>Housing</u>	<u>Action</u>	<u>Part Number</u>
Positive Break	Thermoplastic case with double insulation and metal actuator head	Independent Snap NC+NO	83853304
Positive Break	Thermoplastic case with double insulation and metal actuator head	Dependent Action NC+NO	83853314
Positive Break	Metal bodies and actuator head	Independent Snap NC+NO	83852304
Positive Break	Metal bodies and actuator head	Dependent Action NC+NO	83852314

Flexible Metal Lever, Momentary Action 4 Positions - 90 degrees IP66

<u>Features</u>	<u>Housing</u>	<u>Action</u>	<u>Part Number</u>
Positive Break	Thermoplastic case with double insulation and metal actuator head	Independent Snap NC+NO	83853601
Positive Break	Thermoplastic case with double insulation and metal actuator head	Dependent Action NC+NO	83853611
Positive Break	Metal bodies and actuator head	Independent Snap NC+NO	83852601
Positive Break	Metal bodies and actuator head	Dependent Action NC+NO	83852611

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



Conform to the following standards :

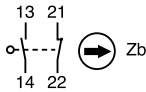
IEC 536-1, IEC 947-5-1, CSA C22.2 No. 14, EN 50047, EN 60947-5-1, EN 60204-1, NFC 20030 class I for 83 852 class II for 83 853 UL 508, VDE 0660/200.

Degree of protection : IP 66
Version : 1 pole

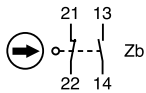
Function : Four-terminal double break contact element (form Zb) with positive opening NC contacts. The two moving contacts are electrically isolated from one another.

Principle :

Independent snap action contact
1 NO + 1 NC



Dependent action
1 NO + 1 NC



Break Before Make

Electrical characteristics

Assigned insulation voltage (U_i) : 500 V
Thermal rating (I_{th}) : 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

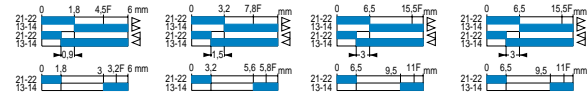
Types

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	vertical			•	
	lateral				•
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

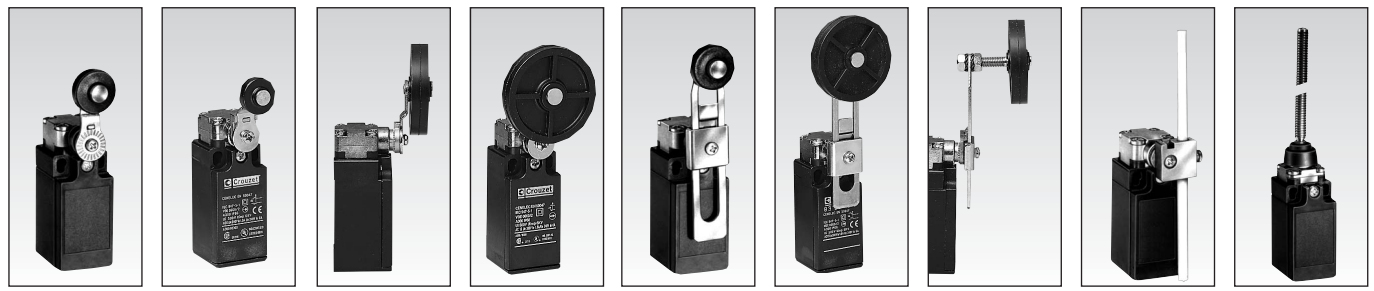
Minimum operating force	N (oz.)	10 (35.3)	10 (35.3)	9 (31.7)	9 (31.7)
Minimum total travel force	N (oz.)	12 (42.3)	12 (42.3)	10 (35.3)	10 (35.3)
Minimum positive opening force	N (oz.)	25 (88.2)	25 (88.2)	20 (70.5)	20 (70.5)
Minimum operating travel	mm (in.)	5 (.2)	5 (.2)	5 (.2)	5 (.2)
Minimum positive 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 limits	Use °C (°F)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)	-25+80(-13+176)
	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.

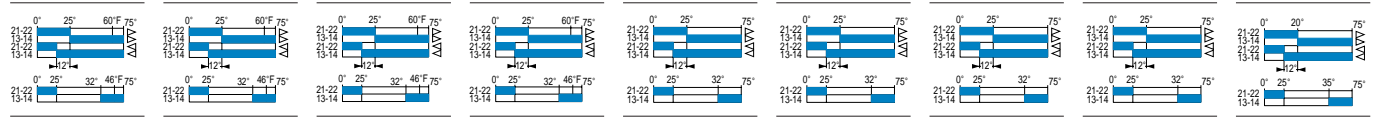
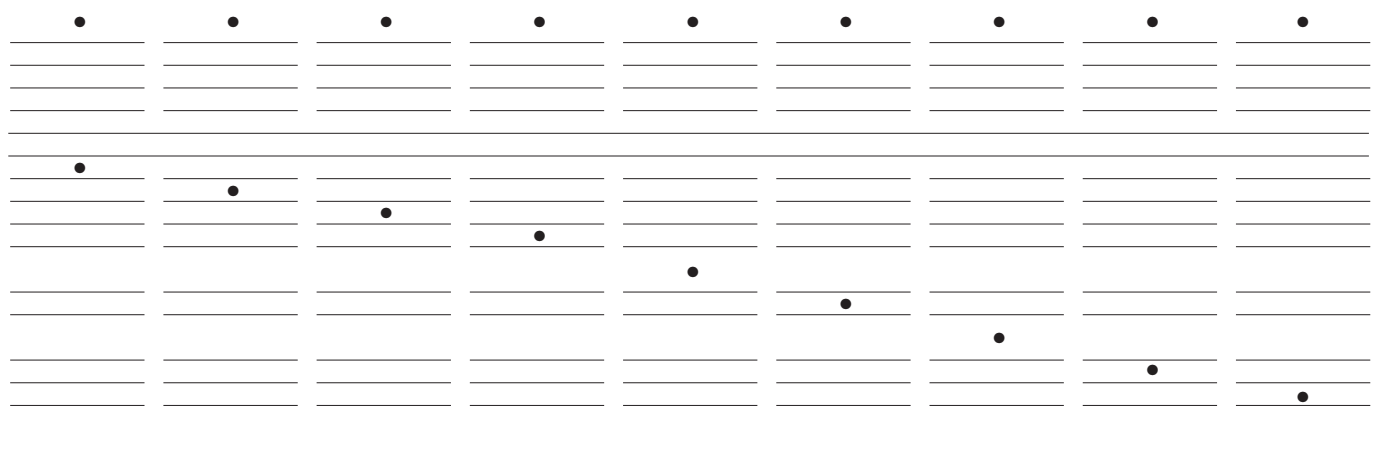
Replacement contact block

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



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°	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)

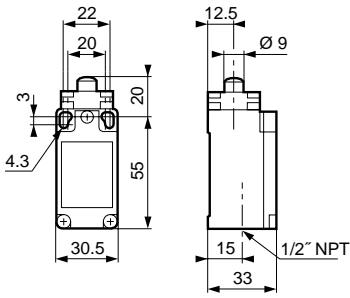
To order, specify :

Standard products
 Standard products, non stocked

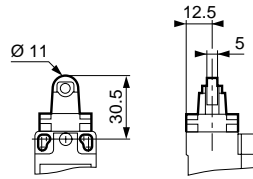
1 Part number
 Example : Limit switch 83 853 001

Dimensions of 83 852 / 83 853 EN 50047

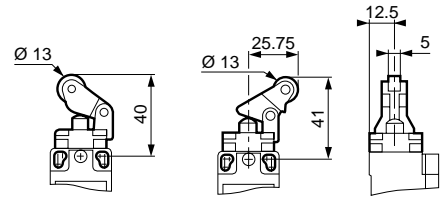
83 852 001/011
83 853 001/011



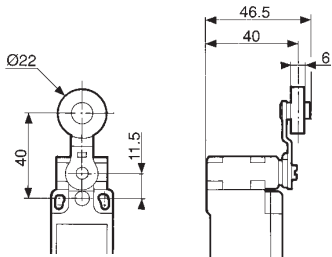
83 852 501/511
83 853 501/511



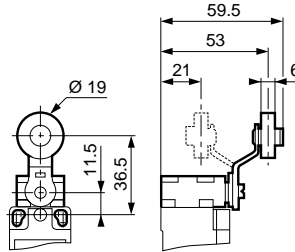
83 852 101 - 201/211
83 853 101 - 201/211



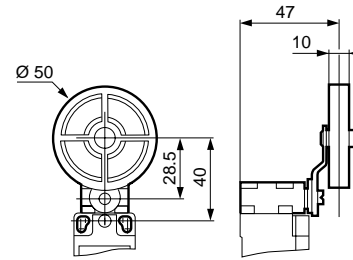
83 852 301/311
83 853 301/311



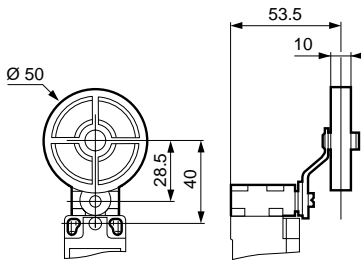
83 852 302/312
83 853 302/312



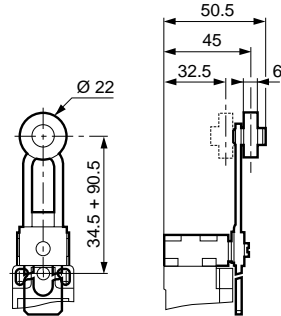
83 852 305/315
83 853 305/315



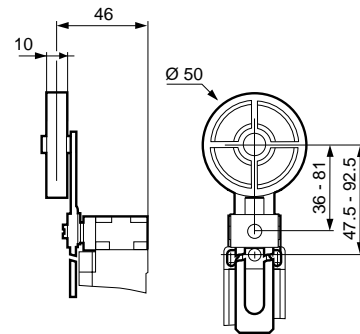
83 852 306/316
83 853 306/316



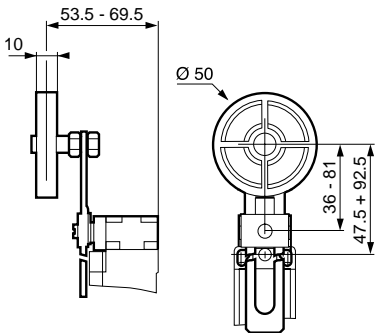
83 852 303/313
83 853 303/313



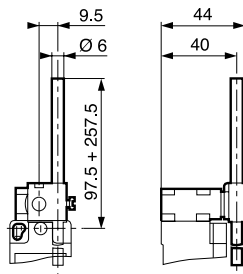
83 852 307/317
83 853 307/317



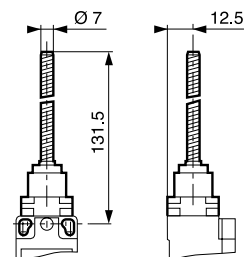
83 852 308/318
83 853 308/318



83 852 304/314
83 853 304/314



83 852 601/611
83 853 601/611



mm