

Miniature

→ 83 160

- Nominal ratings up to 16 A/250 VAC
- Self-cleaning contacts
- 3 mm contact gap for type 83 160 6
- High DC switch rating for type 83 160 6 SP 3697
- Choice of actuators
- Approvals NF - UL (except 83 160 6 SP 3697)



Main specifications

		Standard 83 160 0
Function	Connections	
I (changeover)	W3	
I (changeover)	W2 - W6 - X1 *	83 160 006
R (normally closed)	W2 - W3 - W6 - X1 *	●
C (normally open)	W2 - W3 - W6 - X1 *	●
Electrical characteristics		
Rating nominal / 250 V AC (A)		16
Rating thermal / 250 V AC (A)		20
Rating nominal / 250 V DC (A)		-
Rating thermal / 250 V DC (A)		-
Mechanical characteristics		
Maximum operating force (N)		4
Min. Release force (N)		1.5
Maximum total travel force (N)		6.5
Max. permitted overtravel force (N)		20
Rest position max. (mm)		15.6
Tripping point (mm)		14.8 ^{±0.3}
Maximum differential travel (mm)		0.3
Min. overtravel CRA (mm)		1.3
Ambient operating temperature (°C)		-20 → +125
Mechanical life for 2/3 CRA (operations)		10 ⁷
Contact gap (mm)		1.2
Weight (g)		6.7
Comments		
* X1 for 83 160 6 and 83 160 6 SP 3697 : please consult us		

Additional specifications

Components

Material

- Case : 83 160 0, 3, 4 and 6 polyamide UL94VO.
- Contacts : nickel silver

Lever

- stainless steel
- polyamide roller

Approvals : NF

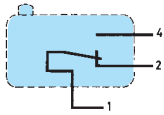
Product adaptations



- Special levers
- Approvals : NF - UL for 83 160 6 SP 3697

Principles

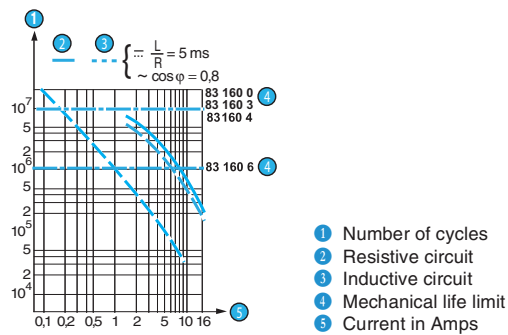
Single break changeover switch



Reduced force 83 160 3	Low force 83 160 4	3 mm contact gap 83 160 6	High DC switch rating 83 160 6 SP 3697
83 160 301	83 160 401		
•	•	•	•
•	•	•	•
•	•	•	•
10	6	16	-
15	10	20	-
-	-	-	5
-	-	-	5
2	1	5	5
0.6	0.3	1	1
3	1.5	7	7
20	20	20	20
15.6	15.6	15.7	15.7
14.8 ^{±0.3}	14.7 ^{±0.3}	14.6 ^{±0.4}	14.6 ^{±0.4}
0.4	0.35	0.7	0.7
1.3	1.3	1	1
-20 → +125	-20 → +125	-20 → +125	-20 → +125
10 ⁷	10 ⁷	10 ⁸	10 ⁸
1.2	1.2	3.2	3.2
6.7	6.7	6.7	6.7

Curves

Operating curve for types 83 160 0 / 3 / 4 / 6



83 160 6 SP 3697

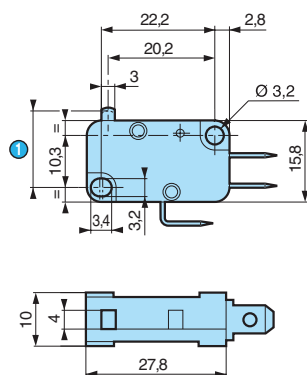
at 250 VDC 1 A L/R 5 ms = 15000 cycles

at 130 VDC 2.6 A L/R 5 ms = 15000 cycles

Dimensions

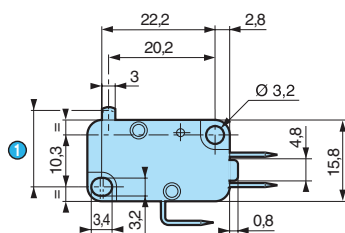
→ Product

83 160 0 / 3 / 4 / 6



① OL = 13.2 max.

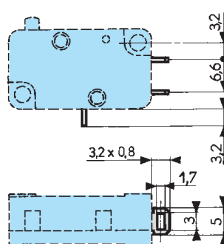
83 160 6 SP 3697



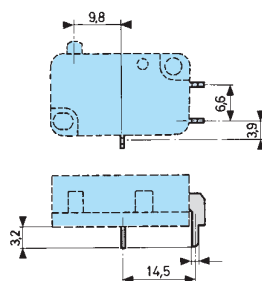
① OL = 13.2 max.

→ Connections

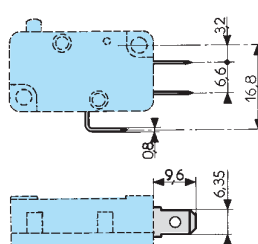
W2 solder



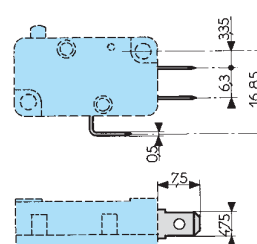
X1 printed circuit board



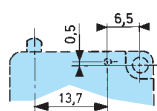
W3 for 6.35 mm clips



W6 for 4.75 mm clips

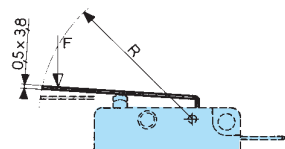


→ Actuator mounting positions

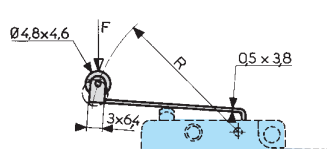


→ Actuators

153 AX



153 EX



Actuators and fixing positions

Part numbers for standard actuators

70 545 0 / 153 A R29.7

70 545 0 / 153 ER15,8

70 545 0 / 153 EF28.7

Actuators

Flat **153 AX** R29.7

Roller **153 EX** R15,8

Roller **153 EX** R28.7



		831600	831603	831606		831600	831603	831606		831600	831603	831606
Fixing positions	mm	15,3 ^{+0,5}	15,3 ^{+0,5}	14,4 ^{+0,6}		20,5 ^{+0,45}	20,5 ^{+0,45}	20,3 ^{+0,55}		20,5 ^{+0,65}	20,5 ^{+0,65}	19,6 ^{+0,75}
Operating force - max.	N	2	1	2,6		4	2	5		2	1	2,6
Release force - min.	N	0,4	0,25	0,3		1	0,55	0,75		0,4	0,25	0,3
Pre-travel - max.	mm	2,5	2,5	3,1		12	12	1,4		2,5	2,5	3,1
Differential travel max.	mm	0,6	0,8	1,5		0,3	0,4	0,7		0,6	0,8	1,5
Total travel max.	mm	2,3	2,3	2,3		2,3	2,3	2,3		4,6	4,6	4,6

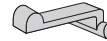
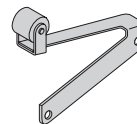
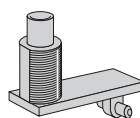
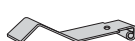
2-pole **153 A2**** R15,9

Dummy roller **F**** R24.3

Telescopic plunger **153L****
(operating temperature 125°C max.)

Flexible with roller **153 B****

153 V**



** Please consult us

Other information

Mounting - Operation

See basic technical concepts

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