

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	83 160 006
I (changeover)	W3	●
I (changeover)	W2 - W6 - X1 *	●
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

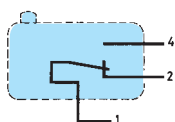
Product adaptations



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

Principles

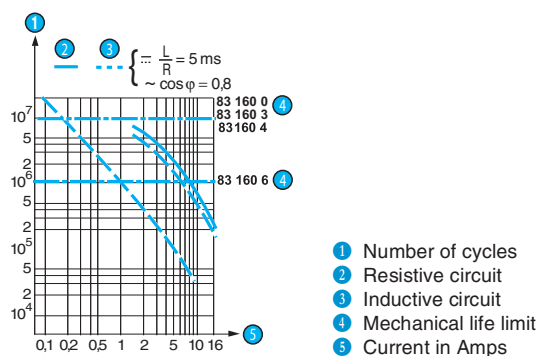
Single break changeover switch



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 $\rightarrow$ +125	-20 $\rightarrow$ +125	-20 $\rightarrow$ +125	-20 $\rightarrow$ +125
10 ⁷	10 ⁷	10 ⁶	10 ⁶
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

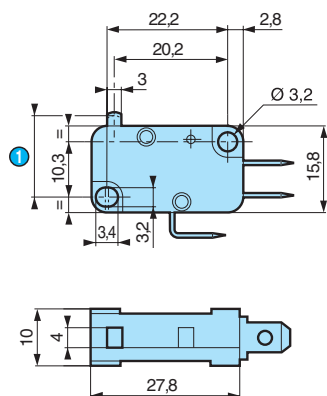
at 250 VDC 1 A L/R 5 ms = 15000 cycles

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

Dimensions

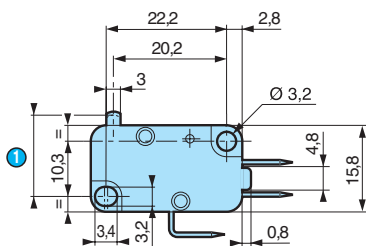
→ Product

83 160 0 / 3 / 4 / 6



① OL = 13.2 max.

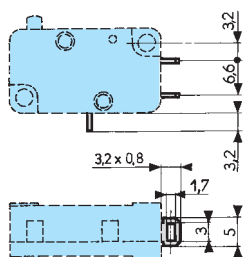
83 160 6 SP 3697



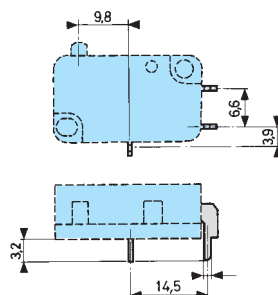
① OL = 13.2 max.

→ Connections

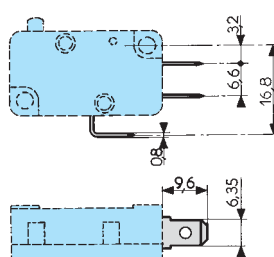
W2 solder



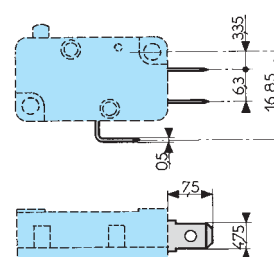
X1 printed circuit board



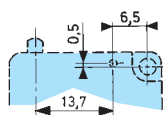
W3 for 6.35 mm clips



W6 for 4.75 mm clips

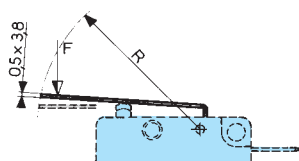


→ Actuator mounting positions

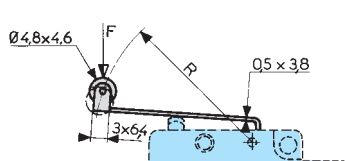


→ Actuators

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 ER28.7

Actuators

Flat **153 AX** R29.7

Roller **153 EX** R15,8

Roller **153 EX** R28.7



		83 1600	83 1603	83 1606		83 1600	83 1603	83 1606		83 1600	83 1603	83 1606
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	25	25	3.1		12	12	1.4		25	25	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	23	23	23		23	23	23		4.6	4.6	4.6

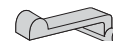
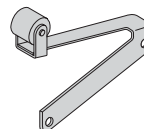
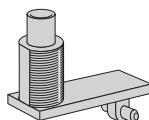
2-pole **153 A2**** R15,9

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

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

Flexible with roller **153 B****

153 V**



** Please consult us

Other information

Mounting - Operation

See basic technical concepts