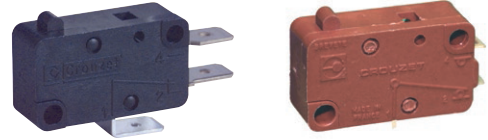


# MINIATURE MICROSWITCHES - HEAVY DUTY

## 83160

- › Coil spring snap-action mechanism with wiping contacts
- › Ratings up to 16(4) A 250 V~ and 10(4) A 400 V~
- › Version with magnetic blowout for enhanced DC breaking capacity up to 5 A 250 V---
- › Long service life: 200 000 operations at nominal rating and up to 10 millions on light load
- › Contact gap less or greater than 3 mm (micro-disconnection ( $\mu$ ) or full disconnection)
- › Operating temperature -40 °C up to +150 °C
- › cURus and NF approved (except 831606 SP3697)
- › Wide choice of actuators: pinned or flexible, stainless steel or plastic



### Main specifications

		Standard 831600	Reduced force 831603	Low force 831604	Wide contact gap 831606	High DC rating 831606 SP3697
<b>Function</b>	<b>Connections</b>					
I (changeover)	W2 (solder)	83160005	83160320	83160420	83160602	83160664
I (changeover)	W3 (QC 6.3x0.8)	83160006	83160301	83160401	83160601	83160679
I (changeover)	W6 (QC 4.8x0.5)	83160045	83160321	83160415	●*	●*
I (changeover)	X1-X2 (PCB straight-rear)	●	●	●	●*	●*
I (changeover)	X3 (PCB front)	83160143	●	●	●*	●*
R (normally closed)	W2 (solder)	83160001	●	●	●	●
R (normally closed)	W3 (QC 6.3x0.8)	83160003	83160319	●	83160621	●
R (normally closed)	W6 (QC 4.8x0.5)	●	●	●	●*	●*
R (normally closed)	X2-X3 (PCB rear-front)	●	●	●	●*	●*
C (normally open)	W2 (solder)	83160002	83160324	●	83160603	●
C (normally open)	W3 (QC 6.3x0.8)	83160004	83160316	83160402	83160622	●
C (normally open)	W6 (QC 4.8x0.5)	83160047	●	●	●*	●*
C (normally open)	X2-X3 (PCB rear-front)	●	●	●	●*	●*
<b>Electrical characteristics</b>						
Rating nominal / 250 V AC (A)		16	10	6	16	16
Rating nominal / 250 V DC (A) **		0.5	0.5	0.4	0.8	5
Rating thermal / 250 V (A)		20	15	10	20	20
Rating NF / 250 V AC (A)		16(4)	10(4)	6(2)	16(4)	-
Rating UL / 125/250 V AC (A)		8	8	6	10	-
<b>Mechanical characteristics</b>						
Maximum operating force (N)		4	2	1	5	5
Min. Release force (N)		1.5	0.6	0.3	1	1
Maximum total travel force (N)		6.5	3	1.5	7	7
Max. Allowable overtravel force (N)		20	20	20	20	20
Rest position max. (mm)		15.6	15.6	15.6	15.7	15.7
Operating position (mm)		14.8 $\pm$ 0.3	14.8 $\pm$ 0.3	14.7 $\pm$ 0.3	14.6 $\pm$ 0.4	14.6 $\pm$ 0.4
Maximum differential travel (mm)		0.3	0.4	0.35	0.7	0.7
Min. overtravel CRA (mm)		1.3	1.3	1.3	1	1
Ambient operating temperature (°C)		-40 → +125	-40 → +125	-40 → +125	-40 → +125	-40 → +125
Mechanical life (operations)		10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>6</sup>	10 <sup>6</sup>
Contact gap (mm)		1.2	1.2	1.2	3.2	3.2
Weight (g)		6.7	6.7	6.7	6.7	6.7

\* Please consult us    \*\* with resistive load

### Additional specifications

- Case, Button: PBT GF (UL 94-V0 / GWFI 960 °C)  
PA66 GF (GWFI 960 °C) - 831606 SP3697 case
- Contacts: silver alloy (gold-plated silver alloy : on request)
- Terminals: brass (except W2/X : copper nickel), silver plated common
- Levers: stainless steel or polyamide, polyamide roller

- Degree of protection: IP40 (mechanism)
- Proof tracking index: PTI 250 (PTI 600 on 831606 SP3697)
- Recommended min actuating speed: 0.1 mm/s

- Certification marks: (except 831606 SP3697) /

### Product adaptations

- › **Special levers: special shapes and lengths**
- › **Special connections: angled, screw with clamp (W5), full wiring with custom connector....**
- › **Telescopic plunger and adjustable fixing by threaded barrel: plastic version (153L accessory) or metal version (SP9603 or 83556, single or double pole)**
- › **High operating temperature: +150 °C**
- › **Variant for irradiated environment (SF1320)**
- › **400 Vac NF approved versions (SP9654)**
- › **cURus / NF approvals for 831606 SP3697**



Standard product

Product made to order



Contact us