SWITCHES.CROUZET.COM 1 MICROSWITCHES 02/2018

SUB-SUBMINIATURE MICROSWITCHES - STANDARD

V5D - 83194

-) Coil spring snap-action mechanism with wiping contacts
- > Very small size
-) Ratings from 1 mA 4 V= to 5 A 250 V \sim
-) Low operating force
- > cURus an CCC approved
- > Very long mechanical life
- > Auxiliary actuators: stainless steel or plastic, pre-assembled or retrofittable



		Standard 831940	Dual-current 831948
Function	Connections		
I (changeover)	W2 (solder)	83194001	83194801
Electrical characte	eristics		
Rating nominal / 25	0 V AC (A)	5	5*
Rating thermal / 25	0 V AC (A)	8.5	8.5
Mechanical chara	cteristics		
Max. operating forc	e (N)	1.4	1.4
Min. Release force	(N)	0.25	0.25
Max. Allowable overtravel force (N)		10	10
Max. rest position (r	mm)	8.8	8.8
Operating position	(mm)	8.1+0.3/-0.2	8.1+0.3/-0.2
Max. differential trav	vel (mm)	0.13	0.13
Min. overtravel (mm	1)	0.25	0.25
Ambient operating	temperature (°C)	-40 → +85	-40 → +85
Mechanical life (ope	erations)	107	107
Contact gap (mm)		0.3	0.3
Weight (g)		1	1

Additional specifications

- Case, Button: PA66 GF (UL 94-V0 / GWFI 960 °C / GWIT 775 °C)
- Moving blade: beryllium copper
- Contacts: gold-plated silver nickel
- Terminals: gold-plated brass
- Levers: stainless steel or PARA GF

- Degree of protection: IP40 (mechanism)
- Recommended actuating speed: 0.1 mm/s to 0.3 m/s

Product adaptations



-) Special actuators: stainless steel or plastic, special shapes and lengths
- > Normally closed (R) or normally open (C) SPST versions
- Connections: for PCB, quick-connect 2.8 x 0.5, special connections
-) High operating temperature: +110 °C
- > ENEC approval

Principles

Single break snap-action switch Changeover - SPDT (form C)



** Consult us

Normally closed - SPST-NC (form B)**



Normally open - SPST-NO (form A)**



Curves

Electrical life

Standard 831940 and Dual-current 831948

- 250 V \sim 5 A resistive > 10 000 cycles
- 30 V == 3 A resistive 50 000 cycles

Dual-current 831948

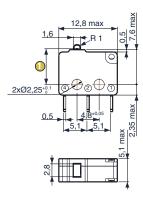
- 5 V == 1 mA resistive 1 000 000 cycles

* Models 831948 are designed to operate equally well on low-current (1 mA 4 V minimum recommended) or medium-current circuits (5 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

Dimensions

Product

83194

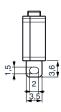


1 Total travel position: max. 7.65

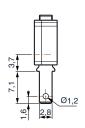
Fixing with M2 screws Max. tightening torque: 0.15 N.m

Connections

W2 solder

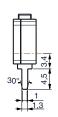


W7A5 quick-connect 2.8 x 0.5**



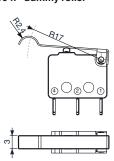
** consult us

X1 for PCB, straight output**

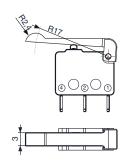


Actuators

194F dummy roller



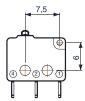
194FP plastic dummy roller



Other shapes and dimensions: consult us

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Actuator mounting position



Actuators and mounting accessories

Actuators		Dummy roller stainless steel 194F R17	Dummy roller plastic 194FP R17
Operating force - max.	N	0.7	0.7
Release force - min.	N	0.09	0.09
Rest position - max.	mm	11.7	11.7
Operating position	mm	10.3 +0.8/-0.55	10.3 +0.8/-0.55
Total travel position - max.	mm	9.3	9.3
Differential travel - max.	mm	0.45	0.45
Mechanical life	operations	2.10 ⁶	10 ⁶

V5D-83194 microswitches with referenced actuators

	Actuators	194F R17	194FP R17
831940	I W2	83194015	83194014
831948	I W2	83194813	83194814

Installation recommendations

See "Basic technical concepts"

For use above 150 V: to ensure protection against electric shock after installation in the application, any parts inserted in the mounting holes shall be insulated.

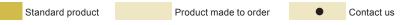
How to order

Use the 8 digit part numbers when they are defined

Other cases, precise: Type of microswitch - Function - Connection - Actuator*

* if needed

Example: 831940 C W2 194FP R17



Warning:

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Crouzet:

83194014 83194814 83194813 83194801