## MINIATURE MICROSWITCHES - ROTARY ACTION

## 83137

> Highly sensitive snap-action mechanism with rotary action
> Operation by stainless steel wire, easily adaptable to the installation conditions
> Very low operating torques
> Ratings from 1 mA 4 V-.- to 5 A 250 V~
> Very long mechanical life
> $+125^{\circ} \mathrm{C}$ max operating temperature


Main specifications

|  |  | $\begin{aligned} & \text { Standard } \\ & 831370 \end{aligned}$ |  | Increased torque831375 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | With lever | Without lever | With lever | Without lever |
| Function | Connections |  |  |  |  |
| I (changeover) | W3 (QC $6.3 \times 0.8)$ | 83137004 | 83137019 | 83137507 | 83137502 |
| 1 (changeover) | W2 (solder) | 83137003 | 83137017 | $\bullet$ | $\bullet$ |
| 1 (changeover) | W6 (QC $4.8 \times 0.5$ ) | 83137055 | 83137020 | $\bullet$ | $\bullet$ |
| R (normally closed) | W3 (QC $6.3 \times 0.8)$ | 83137008 | 83137028 | $\bullet$ | $\bullet$ |
| R (normally closed) | W2 (solder) | - | 83137027 | $\bullet$ | $\bullet$ |
| R (normally closed) | W6 (QC $4.8 \times 0.5$ ) | $\bullet$ | - | $\bullet$ | - |
| C (normally open) | W3 (QC $6.3 \times 0.8)$ | 83137006 | 83137026 | 83137517 | 83137503 |
| C (normally open) | W2 (solder) | 83137005 | 83137025 | - | - |
| C (normally open) | W6 (QC $4.8 \times 0.5^{\circ}$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| Electrical characteristics |  |  |  |  |  |
| Rating nominal / 250 V AC (A) |  | 5 | 5 | 5 | 5 |
| Rating thermal / 250 V AC (A) |  | 14 | 14 | 14 | 14 |
| Mechanical characteristics |  |  |  |  |  |
| Max. Operating torque (mN.m) |  | 1.2 | 1.2 | 2 | 2 |
| Min. Release torque (mN.m) |  | 0.1 | 0.1 | 0.1 | 0.1 |
| Max Pretravel ( ${ }^{\circ}$ ) |  | 26 | 26 | 26 | 26 |
| Differential travel ( ${ }^{\circ}$ ) |  | $10^{ \pm 4}$ | $10 \pm 4$ | $10^{ \pm 4}$ | $10^{ \pm 4}$ |
| Min. Overtravel ( ${ }^{\circ}$ ) |  | 12 | 12 | 12 | 12 |
| Ambient operating temperature ( ${ }^{\circ} \mathrm{C}$ ) |  | $-20 \rightarrow+125$ | $-20 \rightarrow+125$ | $-20 \rightarrow+125$ | $-20 \rightarrow+125$ |
| Mechanical life (operations) |  | $10^{7}$ | $10^{7}$ | $10^{7}$ | $10^{7}$ |
| Contact gap (mm) |  | 0.8 | 0.8 | 0.8 | 0.8 |
| Weight (g) |  | 8.4 | 8.1 | 8.4 | 8.1 |

## Additional specifications

- Case: PA66 GF (UL 94-V0 / GWFI $960^{\circ} \mathrm{C}$ )
- Contacts: silver alloy (gold-plated silver alloy : on request)
- Terminals: brass (except W2: copper nickel), silver plated common
- Levers: stainless steel wire
- Degree of protection: IP40 (mechanism)
- Recommended min actuating speed: $1^{\circ} / \mathrm{s}$
- Protection against electric shock: wire lever has reinforced insulation for Ui 250 V / Uimp 2,5kV / pollution 2
- Conformity / Certifications: $\boldsymbol{Y N}_{\mathrm{us}}$ on request / @EFL CE


## Product adaptations

> Special wire levers: special shapes and lengths
> Specific angular setting of the lever
> Lever supplied separately (length 100 mm : 70509034)
> Other connections: screw+clamp (W5), angled terminals, ...
> Low-current version with gold plated contacts for use from 1 to 100 mA at 4 to 30 V
> Specific switching hysteresis : increased or reduced differential travel
> High resistance to shock (SP2867)
> cURus approved versions
Principles
Single break snap-action switch

Changeover - SPDT (form C)


Normally closed - SPST-NC (form B)


Normally open - SPST-NO (form A)


## Curves

## Operating curve for types 831370-831375



## Dimensions

## Product

83137
2 holes $\oslash 3.2$
(2) Rest position

## Connections

W2 solder


W3 quick-connect $6.3 \times 0.8$


W6 quick-connect $4.8 \times 0.5$


## Installation recommendations

See "Basic technical concepts".
For models supplied without lever: it is recommended to clamp the shaft after mounting the lever in order to secure the assembly

## How to order

Use the 8 digit part numbers when they are defined
Other cases, precise: Type of microswitch - Function - Connection - Lever* - Adaptations*

* if needed

Example: 831375 I W2 LVR UL

Examples of special adaptations


Customized wire lever

## Warning:

The product information contained in this catalogue is given purely as information and does not constitute a representation, warrantly or any form of contractual commitment Crouzet and its subsidiaries reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsability of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

