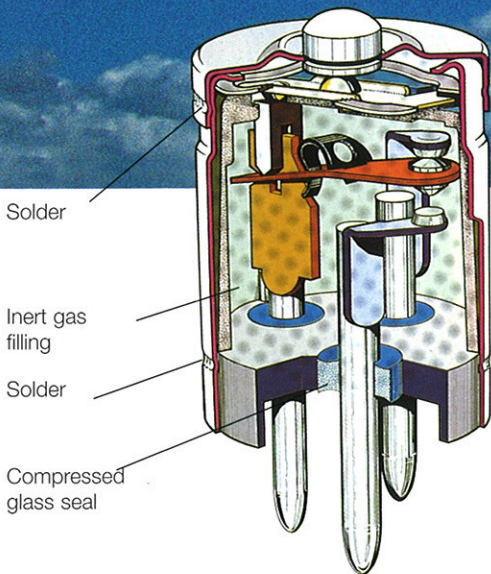


Hermetically sealed microswitch

Without accessories

(basic cell -55° +150°C 83 151 001)



HERMETICALLY SEALED CELL 83 151...

PRESENTATION



This is the basic component for our whole range of standard 1-pole and 2-pole hermetically-sealed limit switches plus the 3-pole version (special Limit Switches).

The CROUZET hermetic microswitch combines a snap-action switching system with high resistance to shock and vibration in an hermetically sealed miniature case which

encloses an atmosphere of inert gas around its contacts, ideal for switching very low level circuits and higher currents also.

The meticulous care taken in the manufacture of this hermetically sealed cell in terms of assembly processes, cleanliness of components as well as inspection procedures, result in a product which is ideal for operation in severe environments where a high level of reliability is essential. The CROUZET hermetically sealed cell is particularly well suited to sectors such as Aerospace, Armaments, Marine, Nuclear, etc.

ELECTRICAL CAPACITY

The enclosure of a snap-action switching system within a sealed case filled with inert gas improves electrical contact and enables us to guarantee very low voltage drops during operation.

MECHANICAL RESISTANCE

This product is designed for guaranteed long service life for travel up to a load of 80 N. Low remanence.

ISO 9001

MINISTÈRE DE LA DÉFENSE
DGA
SERVICE DE LA SURVEILLANCE INDUSTRIELLE DE L'ARMEMENT
ATTESTATION RAQ-1

Le système d'assurance de la qualité dont le champ d'action est défini au paragraphe 1 ci-dessus a été jugé conforme aux exigences du Règlement sur l'Assurance de la Qualité R2 tel qu'il est précisé ci-dessous.

1. -

2. -

Les en-

donn-

La pr-

temp-

03

A34

Ann

Ben

APPROVALS

"DGA approved" products

- Air Equipment References
- GAM T1 list

"European Defence" listed products

- CECC / MUHAG list

Conforming to standards

- AIR 7306 / GAM EG 13
- ISO 7137 / RTCA DO 160 / EUROCAE 14
- MIL STD 202



HERMETIC SEAL

We guarantee that our products are hermetically sealed according to standard

EN 60068 -2-17 IEC 68-2-17

Fine leakage current less than
 1×10^{-6} atm cm³/s
 (Performance value $\rightarrow 1 \times 10^{-8}$ atm cm³/s)



Characteristics

Min. current	5 Vdc	mA	1
Nominal current			
Resistive	48 Vdc ⁽¹⁾	A	3
Lamp	115 V - 400 Hz	A	1
Lamp	30 Vdc ⁽¹⁾	A	2
Resistive	30 Vdc ⁽¹⁾	A	3
Inductive L/R = 0.005 s	30 Vdc ⁽¹⁾	A	1.5
Resistive	220 Vac	A	1
Inductive - cos φ 0.8	220 Vac	A	0.4
Service life at nominal current ⁽³⁾ - operations		min	200,000
Dielectric strength between connections and ground		V	1,200
Rigidity between connections		V	1,000
Insulation resistance (at 500 Vdc)		MΩ	100
Voltage drop at 1 A ⁽²⁾		V	0.02
Operating temperature		°C	-55 +150
Resistance to shock ⁽³⁾		g/ms	200/11
Resistance to vibration ⁽³⁾		g/Hz	80/20 \rightarrow 2000

(1) For a service life of 100,000 operations - Permissible current 4A inductive
 7 A resistive for normally open or normally closed.

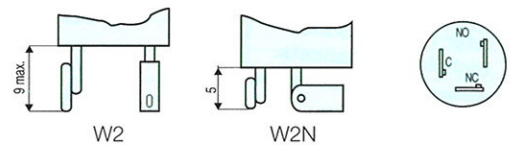
(2) On soldered connections - For wired connections add 0.1 V per meter.

(3) Value for microswitch without control button

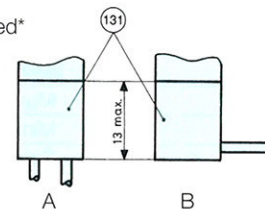
Connections

A - Parallel to the axis (//)
B - Perpendicular to the axis (⊥)
 131 - Epoxy resin coating
 *0.38 mm² - 0.50 m long

Soldered



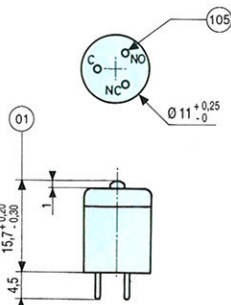
Wired*



Operating force	Release force	Total travel force	Pre-travel	Differential travel	Overtravel
OF max.	RF min.	TTF max.	PT	DT max.	OT min.
10 N	1.5 N	20 N	0.15 mm	0.05 mm	0.08 mm

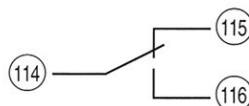
Dimensions

01 - Rest position
 105 - 3 terminals Ø 1.3 at 120°



Electrical diagram

114 - Green wire C
 115 - NC Black wire
 116 - NO Red wire



STABILITY OF MECHANICAL CHARACTERISTICS

(Mounted in temperatures of up to 150°C under a load of 25 N).

We have only recorded a variation of 0.5 N for Forces and 0.02 mm for positions.

VERY GOOD MECHANICAL RELIABILITY.