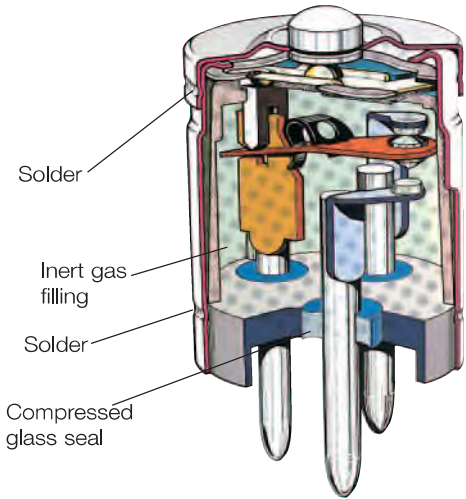


Hermetically sealed microswitch

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.

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^{-5} atm cm³/s
 (Performance value → 1×10^{-8} atm cm³/s)

Product characteristics

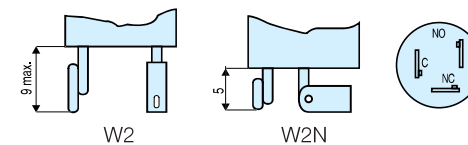
Min. current	5 Vdc	mA	1
Nominal current			
Resistive	48 Vdc ⁽¹⁾	A	3
Lamp	115 V - 400 Hz	A	1
Lamp	30 Vdc ⁽¹⁾	A	2
Resistive	30 Vdc ⁽¹⁾	A	3
Inductive L/R = 0.005 s	30 Vdc ⁽¹⁾	A	1.5
Resistive	220 Vac	A	1
Inductive - cos φ 0.8	220 Vac	A	0.4
Service life at nominal current ⁽³⁾ - operations		min	200,000
Dielectric 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 → 2000

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

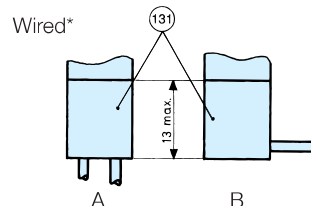
Connections

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

Soldered

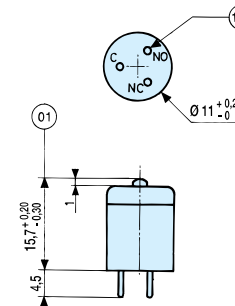


Wired*



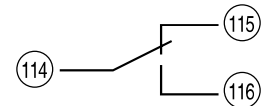
Dimensions

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



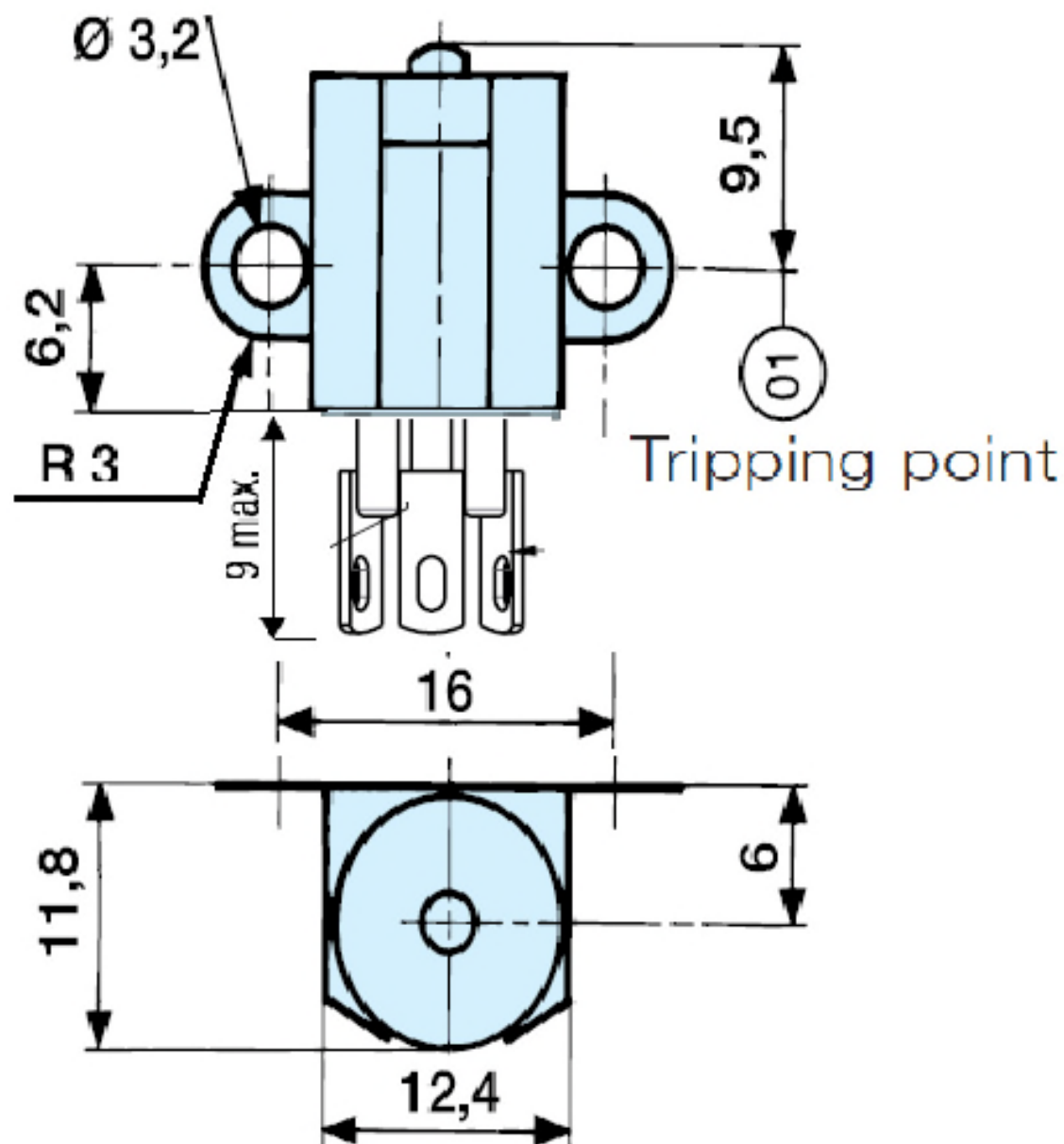
STABILITY OF MECHANICAL CHARACTERISTICS

(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.



Dimensions



Part numbers

Soldered connections	W2	83 151 012
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Wire 0.38 mm²

0.5 m long

Mounting by flange

by threaded barrel
reinforced

Product characteristics

Max. operating force	N	10
Min. release force	N	1.5
Permitted overtravel force	N	20
Positive overtravel stop		
Service life (operations - min)		200,000
Max. pre-travel	mm	0.25
Max. differential travel	mm	0.05
Min. overtravel	mm	0.08
Weight (without wires)	g	5