

T3 Hermetically sealed Microswitches



Application

Microswitch for harsh environment: humidity, corrosion, shocks and vibrations, temperature requirements...

- Operating temperature: -55 °C ... +150 °C.
- Rated breaking capacity: from few mA up to 5 A (depending on voltage and electrical load type).
- Mechanical life: 200 000 cycles (except Microswitches with added overtravel lever actuator where the life cycle depends on the overtravel applied to the product).

Description

Encapsulated snap-action switch.

- Stainless steel casing.
 - Inert gas filled switching chamber.
 - Gold plated silver contacts.
 - Mounting holes for M2 screws.
 - Terminals:
 - solder terminals,
 - 0.38 mm² (AWG 22) leadwires⁽¹⁾, FEP insulation, axial or side outputs .
- (1) Compliant to AIR 4524 specification ; NF L 52-125A Category B of 1971 - lightweight cables. Interchangeability: AICMA No 5116 recommendation of February 1961.

Approvals and Compliance to Standards

French Air Ministry Approval as per letter 44.759/STPA/CIN1 dated 26 October 1987.

Approval according to standards: **AIR 8459, NF C 93-415.**

AIR equipment sheets No: 6.552.221 - 6.552.222 - 6.552.223 - 6.552.224.

Main compliance or performance equivalences with **MIL-PRF-8805** standard requirements.

Environmental characteristics

(For other test results, please contact us)

Salt spray resistance	96 h
Humidity	93% relative humidity, +40°C duration 1000h
Mechanical shocks resistance	100 g - duration 6 ms (pulse shape = 1/2 sine) 18 shocks (3/direction, both of 3 orthogonal axis)
Sinusoidal vibrations resistance	10 _ 2000 Hz, 50 g in each of 3 orthogonal axis
Random vibrations	10 _ 2000 Hz, 0.15 g ² / Hz in each of 3 orthogonal axis
Operating temperature	-55°C +150°C

Mechanical characteristics

Characteristics according to the actuating point (arrow) indicated on dimension drawings.

Hermetically sealed Microswitches	T3LD...	T3LGD...	T3LD60...
Max. operating force N	6	5	6
Min. release force N	1	1	1
Pretravel mm	0.30 ... 0.55	0.35 ... 0.70	0.50 ... 0.70
Differential movement mm	0.05 ... 0.35	0.05 ... 0.45	0.05 ... 0.40
Min. overtravel ⁽¹⁾ mm	0.20	0.20	0.60
Max. full overtravel authorised force N	13	8.5	13

(1) Do not exceed this value in use.

Interaction between overtravel and mechanical life for **T3LD60...** types

Overtravel	mm	0.60	0.90	1.20
Mechanical service life	cycles	5 000	2 500	1 000

Electrical characteristics

Ratings (electrical load on one throw only)		30 ... 48 V d.c.	6 V d.c.	220 V a.c. - 50 Hz
– resistive load	A	5 A	10 mA	2 A
– inductive load	A	1.5 A (L/R ≤ 5 ms)	–	1 A (Cos φ ≥ 0.5)
Electrical service life	cycles	200 000	200 000	100 000
		U = 28 V d.c. for "AIR" approval	"AIR" approval	out of "AIR" approval
Min. switched current.	mA	5	5	5
Changeover time	ms	≤ 10	≤ 10	≤ 10
Contact resistance	mΩ	≤ 25 mΩ under 6 V d.c. – 100 mA according to MIL-PRF-8805 (As new, wires or cable not included)		
Rigidité diélectrique (50 Hz - 1 mn)				
– between terminals	V a.c.	500		
– between all terminals and earth (ground)	V a.c.	1200		
Insulation resistance	MΩ	≥ 1000 MΩ under 500 V d.c. (at 23 °C with < 80 % relative humidity)		

