

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				

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Ratings (electrical load on one throw of	only)	30 48 V d.c.	6 V d.c.	220 V a.c 50 Hz	
- resistive load	Α	5 A	10 mA	2 A	
 inductive load 	Α	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	<u>≤</u> 10	<u>≤</u> 10	<u>≤</u> 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	1 (ground) V a.c.	1200			
Insulation resistance	MΩ	\ge 1000 MΩ under 500 V d.c. (at 23 °C with < 80 % relative humidity)			

T3 Hermetically sealed Microswitches



Specific Products - Contact us for more information ; data sheet on request.

- T3LDSH Microswitch for operating temperatures up to +260 °C.
- T3LDF-R9 Microswitch with 0.8 mm² (~ AWG 18) leadwires "EPR" insulation is designed for use in irradiated areas. Some Limit switches for nuclear power plant use include this variant.

Ordering Details

Standard leadwire length = 0.5 m; other length on request.

Terminals	P/N	Weight (1 piece) kg	·····	the state
Microswitch with straight lever a	ctuator		0 0	
Solder terminals	T3LDS	0.005	000	11/
Wired terminals side outputs	T3LDFL	0.017	T3LDS	T3LDF
Microswitch with roller lever actu Solder terminals Wired terminals Wired terminals side outputs	iator T3LGDS T3LGDF T3LGDFL	0.006 0.018 0.018	T3LGDS	T3LGDFL
Microswithc with lever control "c	vertravel absorber"			Ta
Solder terminals Wired terminals Wired terminals side outputs	T3LD60S T3LD60F T3LD60FL	0.006 0.018 0.01	T3LD60FL	00

Circuit diagram Connection type Solder terminals Wired terminals Wired terminals side outputs "S" "F" "FL" 21.7 21.5 NO NC 9.5 6.1 9.5 6.1 Black Red 9.5 5.6 leadwire leadwire \odot \odot \odot 2 x ø2.2 2 x ø2.2 x ø2.2 nax 3 x ø1.4 С 9.1 ۲ 0 () M0011D 5 Green leadwire NC NO С С NO NC

Dimensions

M2 screws recommended tightening torque: 0.25 to 0.30 Nm. Warning: do not insert fan-type washer in contact with the Microswitch.

