

Application

Microswitch for aerospace or industrial use where an hermetically sealed Microswitch is not required.

- Operating temperature: -55 °C ... +85 °C for **H5459** and **H5463** types
-55 °C ... +150 °C for **H5461** and **H5467** types
- 2 available contact configurations: up to 200 mA for low level applications or 4 A.
- Mechanical service life: 1 000 000 cycles.

Description

Snap action switch - unsealed.

- Plastic casing.
- Gold plated silver contacts or gold contacts.
- Mounting holes for M2 screws.
- Dimensions compliant with DIN 41635 standard – size "B".
- Pin actuator or auxiliary actuator.
- Terminals : 4 options available
 - solder terminals..... code : "**S**"
 - "Radio" terminals..... code : "**R**"
 - fork terminals..... code : "**F**"
 - PCB terminals code : "**J**"

Approvals and Compliance to Standards

French Air Ministry Approval based on standard : **AIR 8459** according to below.

AIR reference: 300-1A for microswitches H5463S, 350-1 for microswitches H5467F,
300-2 for microswitches H5469F, 350-2 for microswitches H5461F.

AIR equipment sheets No 6.552.200, 6.552.201, 6.552.202, 6.552.203, 6.552.210.

Environmental characteristics

(For other test results, please contact us)

Salt spray resistance	48 heures
Humidity	93 % relative humidity, +40 °C duration 168 hours (7 days)
Sinusoidal vibrations	5 _ 500 Hz, 10 g in each of 3 orthogonal axis

Mechanical characteristics

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

Microswitches Type	Without accessory		With flexible levers (accessories)	
	H5459.../ H5461... H5463.../ H5467...	H54... + L11H H54... + L11GH	H54... + L13H H54... + L13GH	H54... + L14H H54... + L14GH
Max. operating force	N 2.50	3.50	6.40	1.80
Min. release force	N –	1.00	2.50	0.60
Pretravel	mm 0.15 ... 0.55	–	–	–
Differential movement	mm 0.04 ... 0.10	–	–	–
Min. overtravel (1)	mm 0.15	–	–	–

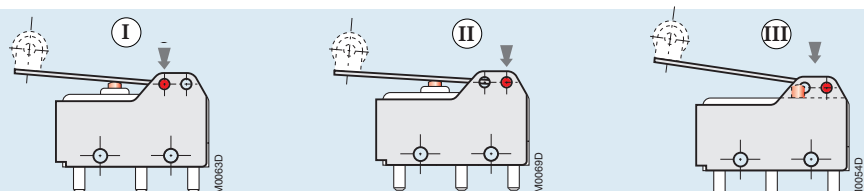
(1) Do not exceed this value in use.

Microswitches Types	Articulated lever auxiliary actuator		
	H54... + L20H lever H54... + L20GH lever	II	III
Actuating lever pivot point	I		
Max. operating force	N 0.70	1.70	0.40
Min. release force	N –	–	–
Pretravel	mm 0.40 ... 2.0	0.30 ... 1.3	0.80 ... 4.0
Differential movement	mm 0.10 ... 0.40	0.10 ... 0.30	0.30 ... 0.80
Min. overtravel (1)	mm 0.60	0.40	1.20

(1) Do not exceed this value in use.

Lever mounting position

According to required performance, 3 mounting positions of the actuator lever are offered.



Electrical characteristics

Ratings (electrical load on one throw only)		5 mV ... 30 V d.c.	30 V d.c.	220 V a.c. - 50 Hz
Version 0.2A	– resistive load A	0.2	–	0.2
	– inductive load A	0.1 A (L/R ≤ 5 ms)	–	0.1 (Cos φ ≥ 0.5)
Version 4 A	– resistive load A	–	4	4
	– inductive load A	–	2 (L/R ≤ 5 ms)	2 (Cos φ ≥ 0.5)
Electrical service life	cycles	100 000	100 000	100 000
Changeover time	ms	≤ 10	≤ 10	≤ 10
Contact resistance	mΩ	≤ 50 mΩ under 6 V d.c. – 100 mA according to MIL-PRF-8805 (As new, wires or cable not included)		
Dielectric strength (50 Hz - 1 mn)				
– between terminals	V a.c.	500		
– between all terminals and earth (ground)	V a.c.	1500		
Insulation resistance	MΩ	≥ 100 MΩ under 500 V d.c. (at 23 °C with < 80 % relative humidity)		

Ordering details

Rated breaking capacity (220 V - 50 Hz)	Terminals	P/N	Weight (1 piece)
A			kg

Microswitch with pin actuator - Operating temperature +85 °C

0.2 Low currents	Solder terminals	H5459S	0.003
	Fork terminals	H5459F	0.003
	"Radio" terminals	H5459R	0.003
	PCB terminals	H5459J	0.003
4 Higher currents	Solder terminals	H5463S	0.003
	Fork terminals	H5463F	0.003
	"Radio" terminals	H5463R	0.003
	PCB terminals	H5463J	0.003



Microswitch with pin actuator - Operating temperature +150 °C

0.2 Low currents	Solder terminals	H5461S	0.003
	Fork terminals	H5461F	0.003
	"Radio" terminals	H5461R	0.003
4 Higher currents	Solder terminals	H5467S	0.003
	Fork terminals	H5467F	0.003
	"Radio" terminals	H5467R	0.003



Ordering details - Accessories

	Lever length mm	P/N	Weight (1 piece) kg
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Flexible lever

Simple lever	24	L11H	0.001
Tandem lever	25.5	L13H	0.002
Simple lever	34	L14H	0.001

Flexible roller levers

Simple lever	23	L11GH	0.002
Tandem lever	24.5	L13GH	0.003
Simple lever	33	L14GH	0.002

Articulated lever auxiliary actuatore

Simple lever		L20H	0.002
Roller lever actuator		L20GH	0.003

Insulating plates - The use of an insulating plate is recommended if the microswitch is to be fitted against a metallic face.

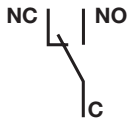
19 x 10 x 0.4	IACH	NS
19 x 10 x 0.5	IBCH	NS
20 x 18 x 0.4	IALH	NS

Note : Accessories in packs of 10.

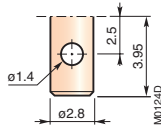


Circuit diagram

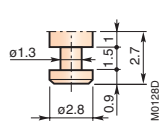
Connection



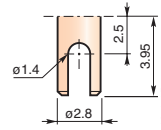
• Solder terminals "S"



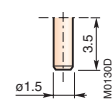
• "Radio" terminal "R"



• Fork terminals "F"



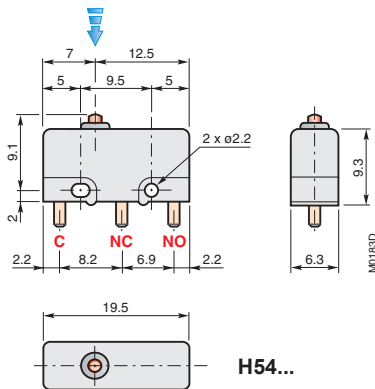
• PCB terminals "J"



Dimensions

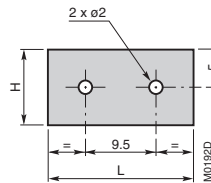
PCB terminal devices are shown on below drawings. M2 screws recommended tightening torque: 0.25 to 0.30 Nm

Microswitches without accessory



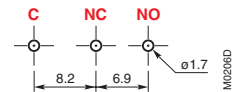
Insulating plates

The use of an insulating plate is recommended if the Microswitch is to be fitted against a metallic face;

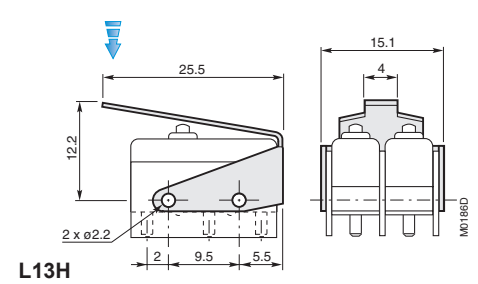
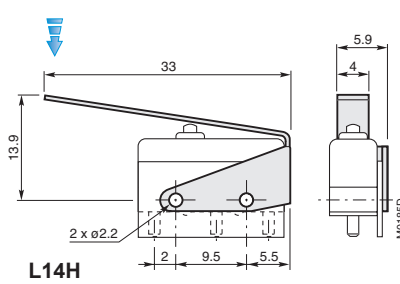
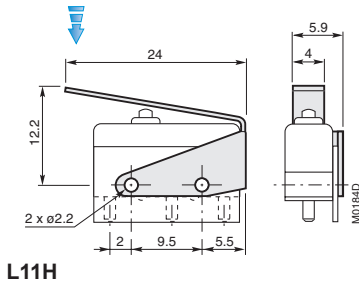


Types	L mm	H mm	Th. mm
IACH	19	10	0.4
IBCH	19	10	0.5
IALH	20	18	0.4

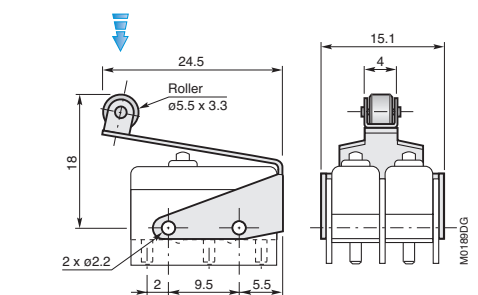
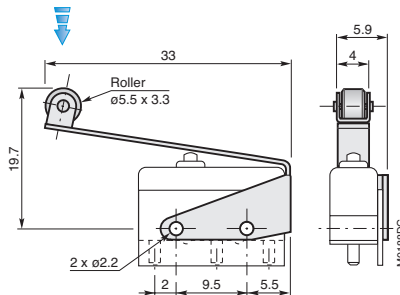
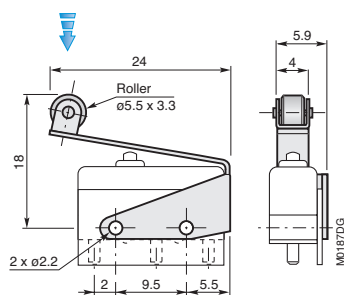
Printed Circuit Board drilling plan for "J" terminals



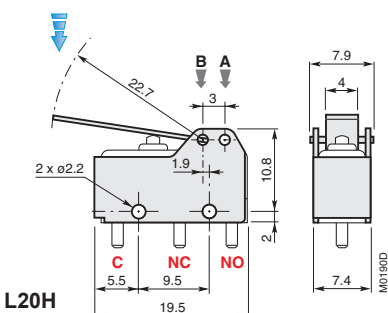
Flexible levers



Flexible roller lever



Articulated lever auxiliary actuator



Articulated roller lever auxiliary actuator

