

# R range

# Hermetically sealed Microswitches



- Operating temperature:
  - > screw terminal:
    - -25°C to +85°C general use
    - $-55^{\circ}$ C to  $+155^{\circ}$ C extended temperature range design
  - > wired terminals:
    - -30°C to +120°C general use
    - -55°C to +155°C extended temperature range design
- Ratings (220V a.c. 50Hz voltage): 2.5A or 5A
- Mechanical service life: 100 000 cycles

### **Environmental characteristics:**

- Salt spray resistance: 96h
- Humidity: 93% relative humidity, +40°C duration 168h
- Mechanical shicks resistance: 50g duration 11ms (pulse shape = 1/2 sinus) 18 shocks (3/direction, both of 3 orthogonal axis)
- Sinusoidal vibrations resistance: 10\_2000Hz, 10g in each of 3 orthogonal axis
- Pressure stress: 5 bars absolute

- -> Encapsuled snap-action switch
- -> Brass tinned casing
- -> Inert gas filled switching chamber
- -> Gold plated silver contact
- -> Mounting by way of screws or threaded bushing according to product design
- -> Terminals:
  - screw terminals
  - 1mm<sup>2</sup> (AWG 17) leadwires, reticulated synthetic rubber insulation general use
  - 0.93mm² (AWG 18) leadwires, FEP insulation extended temperature range design «-1» series

## **Approvals and Compliance to Standards:**

French Air Ministry Approval based on standard: AIR 8459. AIR equipment sheets No 6.552.200, 6.552.201, 6.552.202, 6.552.203, 6.552.210.

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

#### Mechanical characteristics:

- Max. operating force: 7.5 to 9.0 N
- Min. release force: 0.5 to 0.6 x operating force (N)
- Pretravel max:1.50 to 1.70 mm
- Max differential movement: 0.50 to 0.60mm
- Min. overtravel: 0.40 to 3.0mm
- Max full overtravel authorised force: 15 to 18N

#### **Electrical characteristics:**

| Ratings (electrical load on one throw only)           | 30 48 V d.c.   | 115 V d.c.          | 220 V a.c 50 Hz          |
|---|--|---------------------|--------------------------|
| Version 2.5 A - resistive load A                      | 3  | 1                   | 2.5                      |
| <ul> <li>inductive load</li> </ul> A                  | 1.8 A (L/R ≤ 40 ms)  | 0.5 A (L/R ≤ 40 ms) | 1.5 A (Cos $\phi$ ≥ 0.3) |
| Version 5 A - resistive loadif A                      | _  | 3                   | 5                        |
| <ul> <li>inductive load</li> </ul> A                  | -  | 0.5 A (L/R < 40 ms) | 2.5 A (Cos φ ≥ 0.3)      |
| Electrical service life cycles                        | 100 000  | 100 000             | 100 000                  |
| Min. switched current mA                              | 5  | 5                   | 5                        |
| Changeover time ms                                    | ≤ 15   | ≤ 15                | ≤ 15                     |
| Contact resistance mΩ                                 | ≤ 50 mΩ under 6 V d.c 100 mA according to MIL-S-8805 (As new, wires or cable not included) |                     |                          |
| Dielectric strength (50 Hz - 1 mn)                    |  |                     |                          |
| <ul> <li>between terminals</li> <li>V a.c.</li> </ul> | 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)                         |                     |                          |















