

# PALM SWITCHES LP9... TYPE



 **Lovato**  
**electric**

ENERGY AND AUTOMATION

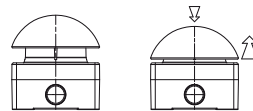


| Order code     | Description   | Qty per pkg n° |
|----------------|---|----------------|
| <b>LP9S01R</b> | Momentary Ø90mm red mushroom.<br>Contacts: 1NC.                     | 1              |
| <b>LP9S11R</b> | Momentary Ø90mm red mushroom.<br>Contacts: 1NO+1NC                  | 1              |
| <b>LP9S10B</b> | Momentary Ø90mm black mushroom.<br>Contacts: 1NO                    | 1              |
| <b>LP9S11B</b> | Momentary Ø90mm black mushroom.<br>Contacts: 1NO+1NC                | 1              |
| <b>LP9P02R</b> | Emergency Ø90mm red mushroom pull-to-release.<br>Contacts: 2NC      | 1              |
| <b>LP9P11R</b> | Emergency Ø 90mm red mushroom pull-to-release.<br>Contacts: 1NO+1NC | 1              |

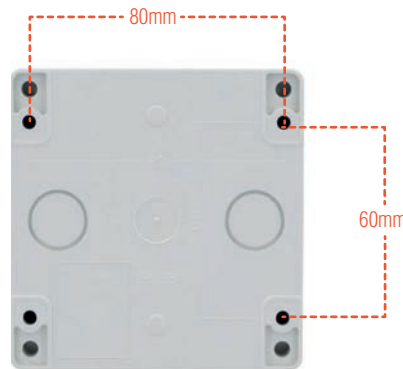
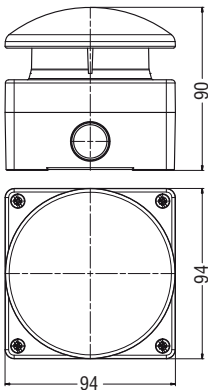
### Momentary mushroom



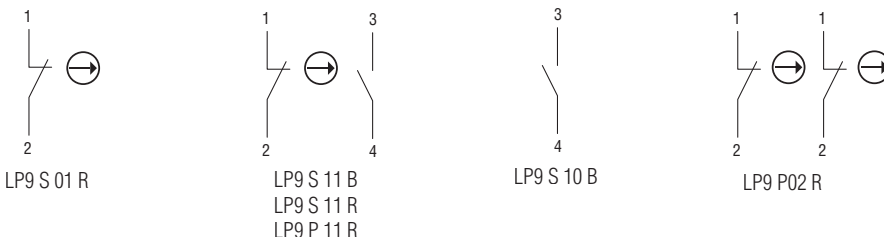
### Emergency mushroom pull-to-release



### DIMENSIONS [mm]



### CONTACT CONFIGURATIONS



## General characteristic

LOVATO Electric palm switches LP9... types are designed for machine stop and immediate service control applications.

They are widely used in the most diverse applications, including emergency stop for escalators, gate openers, pedestrian crossing buttons for disabled users, etc ...

The ergonomic design and large surface for an easy actuation with the hand, elbow or foot, ensures immediate actuation of machinery and equipment even if the operator has his hands full. This new range is split into two versions:

- **Momentary mushroom** (available in grey/black or grey/red);
- **Emergency mushroom "pull-to-release"** (available in yellow/red only).

## Operational characteristics

- cable entry (knockout version):
  - M20/PG13.5 (1 on each side)
  - M16/PG11 (2 on the cover bottom)
- any mounting position allowed
- tightening torque of cover screws Tmax: 0.8Nm
- ambient conditions:
  - operating temperature: -25...+75°C
  - storage temperature: -40...+85°C
- IEC/EN degree of protection: IP65.

### CONTACT ELEMENTS

- rated insulation voltage: 690V
- rated thermal current Ith: 10A
- conductivity: 5V 10mA
- tightening torque of contact screws: 0.5...0.8Nm
- conductor cross section: 1 or 2 - 0.5...2.5mm<sup>2</sup>
- IEC/EN 60947-5-1 designation: A600 Q300

### Minimum operational characteristics in AC15:

|     |    |    |    |     |     |     |     |     |     |
|-----|----|----|----|-----|-----|-----|-----|-----|-----|
| [V] | 12 | 24 | 48 | 120 | 240 | 400 | 480 | 500 | 600 |
| [A] | 6  | 6  | 6  | 6   | 3   | 1.9 | 1.5 | 1.4 | 1.2 |

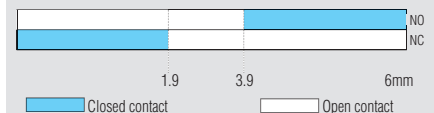
### Minimum operational characteristics in DC13:

|     |    |    |     |      |      |      |      |     |
|-----|----|----|-----|------|------|------|------|-----|
| [V] | 12 | 24 | 48  | 125  | 250  | 440  | 500  | 600 |
| [A] | 3  | 3  | 1.5 | 0.55 | 0.27 | 0.15 | 0.13 | 0.1 |

### Operational characteristics in AC15: 24V 10A and 400V 4A

- short-circuit protection fuse: max. calibre 10A gG/gL
- contact resistance: ≤25mΩ
- operating force: ≤2.6N
- mechanical life: 1.000.000 cycles.

### STROKE OF CONTACT ELEMENTS



## Material

PC-ABS for button and control station.  
PA66 for plastic operator frame (LP9S...).  
Chrome-plated zamak for metal operator frame (LP9P...).

## Compliance

Compliant with standards: IEC60947-5-1.