

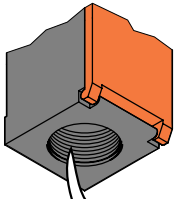
# Position and safety switches

## KB plastic series and KM metal series limit switches dimensions to EN 50047

### Key operated

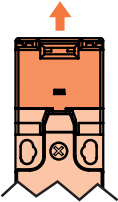


KB N1 L11



#### M20 ENTRY

For types with 1/2 NPT entry, add the letter N at the end of the catalog number.  
E.g. KB N1 L11N



Contacts	Key shape <sup>Ⓢ</sup>	Catalog number <sup>Ⓣ</sup> Plastic body
1NO+1NC Slow break <sup>Ⓛ</sup>	Straight	KB N1 L11
	Angled	KB N2 L11
	Straight "T"	KB N3 L11
	Angled "T"	KB N4 L11
2NC Slow break <sup>Ⓛ</sup>	Straight	KB N1 L02
	Angled	KB N2 L02
	Straight "T"	KB N3 L02
	Angled "T"	KB N4 L02
1NO+2NC Slow break <sup>Ⓛ</sup>	Straight	KB N1 L12
	Angled	KB N2 L12
	Straight "T"	KB N3 L12
	Angled "T"	KB N4 L12
2NO+1NC Slow break <sup>Ⓛ</sup>	Straight	KB N1 L21
	Angled	KB N2 L21
	Straight "T"	KB N3 L21
	Angled "T"	KB N4 L21
3NC Slow break <sup>Ⓛ</sup>	Straight	KB N1 L03
	Angled	KB N2 L03
	Straight "T"	KB N3 L03
	Angled "T"	KB N4 L03

- Ⓛ Direct (positive) operating operation ⊖; safety function according to IEC/EN 60947-5-1.
- Ⓣ Contact Sales & Technical Support for details and pricing.
- Ⓢ The key is standard supplied.

### General characteristics

The LOVATO ELECTRIC limit switches have been designed to satisfy requirements comprising quick installation, wiring ease, simple setup, modularity, sturdiness and constant reliability. The body cover has a captive closing screw and is hinged at the bottom and removable. The heads have axial rotation in any of 4 positions at 90° angles. The auxiliary contact blocks are removable assuring remarkable wiring simplicity. The heads are made of metal while the body housing of self-extinguishing polymer thermoplastic.

### Operational characteristics

- Maximum operating rate: 3600 cy/h
- Switching time: 0.5-1.5m/s
- Mechanical life: >10 million cycles
- Rated thermal current Ith: 10A
- UL designation: A600 Q300
- Rated insulation voltage Ui: 690V
- Rated impulse withstand voltage Uimp: 6kV
- Class II insulation
- Contact capacity: <10mΩ
- Short-circuit backup protection:
  - slow-blow fuse: 10A aM maximum admissible size
  - quick fuse: 16A gG maximum admissible size
- Wire connection: Self-releasing screw terminal
- Degree of protection:
  - IP20 for terminals
  - IP65 for body housing
- Operators of aluminum-zinc alloy
- Housing in self-extinguishing double-insulation polymer thermoplastic
- Wire entry: M20 standard supplied; 1/2 NPT available (see the side note for details)
- Operating head fixing: Locking bayonet insert
- Operating force: 29 oz / 8N
- Operating temperature: -13° to +160°F (-25 to +70°C)
- Storage temperature: -40° to +160°F (-40 to +70°C)
- Pollution degree: 3 (suitable for dirty ambient).

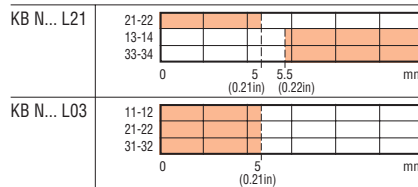
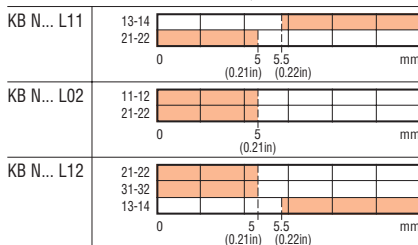
### Certifications and compliance

Certifications: cULus pending.  
Compliant with standards: IEC/EN 60947-5-1, EN 50047, IEC/EN 60204-1, IEC/EN 60081-1.

- ▶ Forward travel of snap action contacts
- ◀ Return travel of snap action contacts

□ open

■ closed



### Accessories and spare parts for key operated switches

Contacts	Catalog number <sup>Ⓣ</sup>
Straight key	K X N1
Angled key	K X N2
Straight "T" key	K X N3
Angles "T" key	K X N4
Toggle key	K X N5

- Ⓣ Contact Sales & Technical Support for details and pricing.