

Limit, micro and foot switches

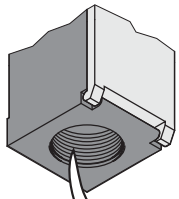
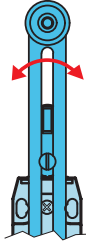
Limit switches, K series.

One bottom cable entry. Dimensions to EN 50047

Adjustable roller lever



KB F... - KM F...



M20 CABLE ENTRY

For types with PG13.5 cable entry, add the letter P at the end of the order code while for 1/2 NPT, add N. E.g. KBF1S11P - KBF1S11N

Order code Plastic body	Metal body	Contacts	Roller material	Qty per pkg	Wt [kg]
One bottom cable entry. Dimensions to EN 50047.					
KB F1 S11	KM F1 S11	1NO+1NC	Plastic ①	5	⑤
KB F2 S11	KM F2 S11	Snap action ④	Metal ①	5	⑤
KB F3 S11	KM F3 S11		Rubber ②	5	⑤
KB F4 S11	KM F4 S11		Rubber ③	5	⑤
KB F1 S02	KM F1 S02		2NC	Plastic ①	5
KB F2 S02	KM F2 S02	Snap action ④	Metal ①	5	⑤
KB F3 S02	KM F3 S02		Rubber ②	5	⑤
KB F4 S02	KM F4 S02		Rubber ③	5	⑤
KB F1 A11	KM F1 A11	1NO+1NC	Plastic ①	5	⑤
KB F2 A11	KM F2 A11	Slow action make before break ④	Metal ①	5	⑤
KB F3 A11	KM F3 A11		Rubber ②	5	⑤
KB F4 A11	KM F4 A11	Rubber ③	5	⑤	
KB F1 L11	KM F1 L11	1NO+1NC	Plastic ①	5	⑤
KB F2 L11	KM F2 L11	Slow action ④	Metal ①	5	⑤
KB F3 L11	KM F3 L11		Rubber ②	5	⑤
KB F4 L11	KM F4 L11		Rubber ③	5	⑤
KB F1 L02	KM F1 L02	2NC	Plastic ①	5	⑤
KB F2 L02	KM F2 L02	Slow action ④	Metal ①	5	⑤
KB F3 L02	KM F3 L02		Rubber ②	5	⑤
KB F4 L02	KM F4 L02		Rubber ③	5	⑤
KB F1 L20	KM F1 L20	2NO	Plastic ①	5	⑤
KB F2 L20	KM F2 L20	Slow action	Metal ①	5	⑤
KB F3 L20	KM F3 L20		Rubber ②	5	⑤
KB F4 L20	KM F4 L20		Rubber ③	5	⑤
KB F1 L12	KM F1 L12	1NO+2NC	Plastic ①	5	⑤
KB F2 L12	KM F2 L12	Slow action ④	Metal ①	5	⑤
KB F3 L12	KM F3 L12		Rubber ②	5	⑤
KB F4 L12	KM F4 L12		Rubber ③	5	⑤
KB F1 L21	KM F1 L21	2NO+1NC	Plastic ①	5	⑤
KB F2 L21	KM F2 L21	Slow action ④	Metal ①	5	⑤
KB F3 L21	KM F3 L21		Rubber ②	5	⑤
KB F4 L21	KM F4 L21		Rubber ③	5	⑤
KB F1 L03	KM F1 L03	3NC	Plastic ①	5	⑤
KB F2 L03	KM F2 L03	Slow action ④	Metal ①	5	⑤
KB F3 L03	KM F3 L03		Rubber ②	5	⑤
KB F4 L03	KM F4 L03		Rubber ③	5	⑤

BI-DIRECTIONAL.

One bottom cable entry. Dimensions to EN 50047.

KB F1 D02	KM F1 D02	2NC ④ independent	Plastic ①	5	⑤
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① Ø19x5mm = Ø0.75x0.2"

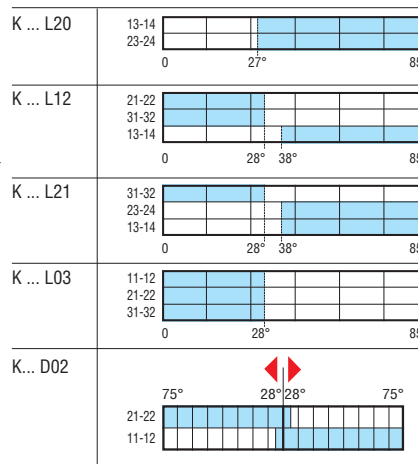
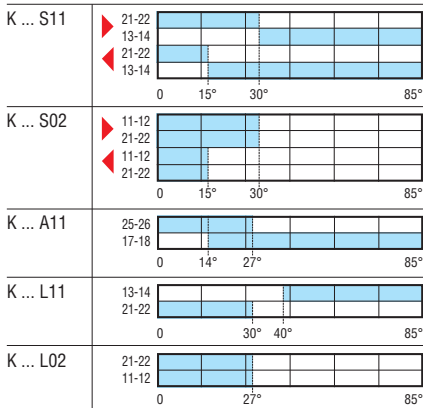
② Ø50x10mm = Ø1.97x0.34"

③ Ø50x10mm (Ø1.97x0.35") with offset alignment.

④ Direct (positive) opening action ☺; safety function according to IEC/EN 60947-5-1.

⑤ Consult Customer Service for information; see contact details on inside front cover.

▶ Forward travel of snap action contacts ☐ open
◀ Return travel of snap action contacts ■ closed



General characteristics

The LOVATO ELECTRIC limit switches have been designed to satisfy requirements comprising quick installation, easy wiring, simple setup, modularity, sturdiness and constant reliability.

The body cover is hinged at the bottom and removable. The innovative locking bayonet mechanism permits to remove and reposition the operating head in the required configuration with no tools. The heads have axial rotation of 180° angles.

The auxiliary contact blocks are removable assuring remarkable wiring ease.

Operational characteristics

- Maximum operating rate: 3600 cycles/h
- Switching speed: 0.5-1.5m/s
- Mechanical life: >10 million cycles
- IEC conventional thermal current Ith: 10A
- UL/CSA and IEC/EN 60947-5-1 designation:
 - A600 Q300 for KB types
 - A300 Q300 for KM types
- IEC rated insulation voltage Ui:
 - 690V for KB types
 - 440V for KM types
- IEC rated impulse withstand voltage Uimp:
 - 6kVAC for KB types
 - 4kVAC for KM types
- Class II insulation for KB only
- Contact resistance: <10mΩ
- Short-circuit backup protection: 10A gG/SC quick fuse
- Operators of aluminium-zinc alloy
- Housing:
 - KB types - Self-extinguishing double-insulation polymer thermoplastic
 - KM types - Aluminium-zinc alloy
- Cable entry: M20 standard supplied; PG13.5 and 1/2 NPT available (see the side note for details)
- Operating head fixing: Locking bayonet insert
- Operating force: 3Ncm/4.25ozin
- Cable connection: Self-releasing screw terminal
- Tightening torque:
 - Switch fixing: 2.5Nm / 22.1lbin
 - Contact terminals: 0.8Nm / 7lbin
 - Body lid screw fixing: 0.8Nm / 7lbin
- Conductor section: 1 or 2 2.5mm² max / 16-14 AWG
- Ambient conditions:
 - Operating temperature: -25 ... +70°C
 - Storage temperature: -40 ... +70°C
 - Pollution degree: 3
 - IEC degree of protection: IP20 for terminals
 - IEC degree of protection: IP65 for body housing.

Certifications and compliance

Certifications obtained: EAC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices - Limit switches.

Compliant with standards: EN 50047, IEC/EN 60947-1, IEC/EN 60947-5-1, IEC/EN 60204-1, UL508, CSA C22.2 n° 14.