

# KMR 2 Series Microminiature SMT Top Actuated

## Features/Benefits

- Small footprint
- 4 actuation forces
- Excellent tactile feel
- Ultra low current capabilities
- IP40

## Typical Applications

- Automotive
- Industrial electronics
- Medical equipment



Tactile Switches

## Specification

FUNCTION: momentary action

CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.

TERMINALS: Gullwing type for SMT

## Mechanical

| Type G and NG<br>See description<br>below | Operating<br>force<br>N (grs) | Operating<br>life<br>(cycles) | Travel (mm)   |
|-------------------------------------------|-------------------------------|-------------------------------|---------------|
| KMR211 LFS                                | 1.2 (120) ± 0.30              | 200,000                       | 0.20 mm ± 0.1 |
| KMR211 ULC LFS                            | 1.2 (120) ± 0.30              | 200,000                       | 0.20 mm ± 0.1 |
| KMR213 LFG                                | 1.2 (120) ± 0.30              | 200,000                       | 0.20 mm ± 0.1 |
| KMR213 ULC LFG                            | 1.2 (120) ± 0.30              | 200,000                       | 0.20 mm ± 0.1 |
| KMR221 LFS                                | 2.0 (200) ± 0.50              | 200,000                       | 0.25 mm ± 0.1 |
| KMR221 ULC LFS                            | 2.0 (200) ± 0.50              | 200,000                       | 0.25 mm ± 0.1 |
| KMR223 LFG                                | 2.0 (200) ± 0.50              | 200,000                       | 0.25 mm ± 0.1 |
| KMR223 ULC LFG                            | 2.0 (200) ± 0.50              | 200,000                       | 0.25 mm ± 0.1 |
| KMR231 LFS                                | 3.0 (300) ± 0.75              | 150,000                       | 0.25 mm ± 0.1 |
| KMR231 ULC LFS                            | 3.0 (300) ± 0.75              | 150,000                       | 0.25 mm ± 0.1 |
| KMR232 LFS                                | 3.0 (300) ± 0.75              | 300,000                       | 0.25 mm ± 0.1 |
| KMR232 ULC LFS                            | 3.0 (300) ± 0.75              | 300,000                       | 0.25 mm ± 0.1 |
| KMR233 LFG                                | 3.0 (300) ± 0.75              | 150,000                       | 0.25 mm ± 0.1 |
| KMR233 ULC LFG                            | 3.0 (300) ± 0.75              | 150,000                       | 0.25 mm ± 0.1 |
| KMR241 LFS                                | 4.0 (400) ± 1.00              | 100,000                       | 0.30 mm ± 0.1 |
| KMR241 ULC LFS                            | 4.0 (400) ± 1.00              | 100,000                       | 0.30 mm ± 0.1 |
| KMR242 LFS                                | 4.0 (400) ± 1.00              | 200,000                       | 0.30 mm ± 0.1 |
| KMR242 ULC LFS                            | 4.0 (400) ± 1.00              | 200,000                       | 0.30 mm ± 0.1 |
| KMR243 LFG                                | 4.0 (400) ± 1.00              | 100,000                       | 0.30 mm ± 0.1 |
| KMR243 ULC LFG                            | 4.0 (400) ± 1.00              | 100,000                       | 0.30 mm ± 0.1 |

## Electrical

|                        | Silver     | Gold    |
|------------------------|------------|---------|
| MAXIMUM POWER:         | 1 VA       | 0.2 VA  |
| MAXIMUM VOLTAGE:       | 32 VDC     | 32 VDC  |
| MINIMUM VOLTAGE:       | 20 mVDC    | 20 mVDC |
| MAXIMUM CURRENT:       | 50 mA      | 10 mA   |
| MINIMUM CURRENT:       | 1 mA*      | 1 mA*   |
| DIELECTRIC STRENGTH:   | ≥ 250 Vrms |         |
| CONTACT RESISTANCE:    | ≤ 100 mΩ   |         |
| INSULATION RESISTANCE: | ≥ 1GΩ      |         |
| BOUNCE TIME:           | ≤ 3 ms     |         |

\*For ULC version minimum current is 1μA at 1.8 VDC

## Environmental

|                        | Silver        | Gold           |
|------------------------|---------------|----------------|
| OPERATING TEMPERATURE: | -40°C to 85°C | -40°C to 125°C |
| STORAGE TEMPERATURE:   | -55°C to 85°C | -55°C to 125°C |

## Process

Soldering: Lead free reflow soldering process in accordance with IEC 61760-1.

## Packaging

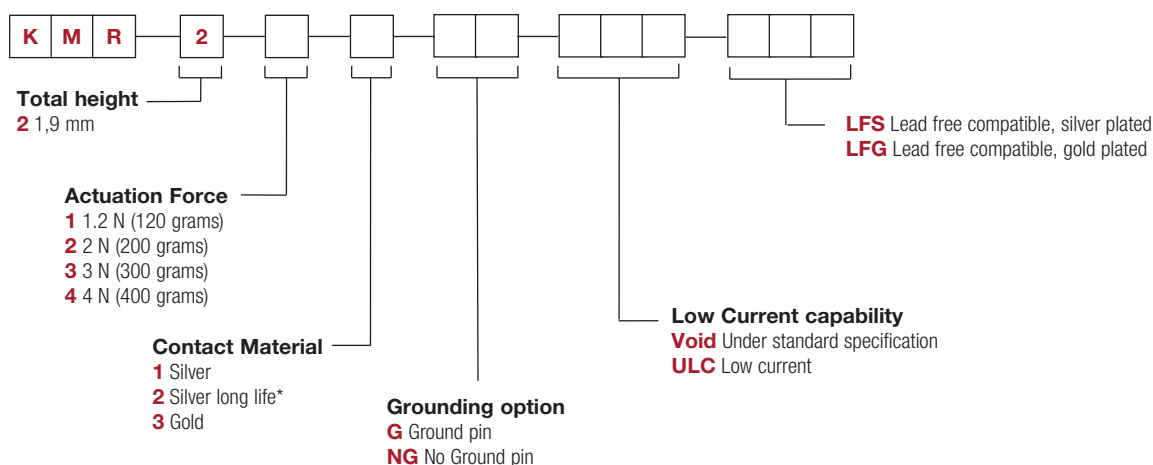
In reels of 7,000 pieces  
External diameter 330 mm ± 2 mm

**NOTE:** Specifications listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

TACTILE FEELING: KMR 2 series with actuation force in 2N - 3N - 4N: ≥ 30%  
KMR 2 series with actuation force in 1.2N: ≥ 20%

## Part Number Description

For any part number different from those listed above, please consult your local representative.



\* Silver long life is available in 3N and 4N actuation force. For other versions, please contact Customer Service.

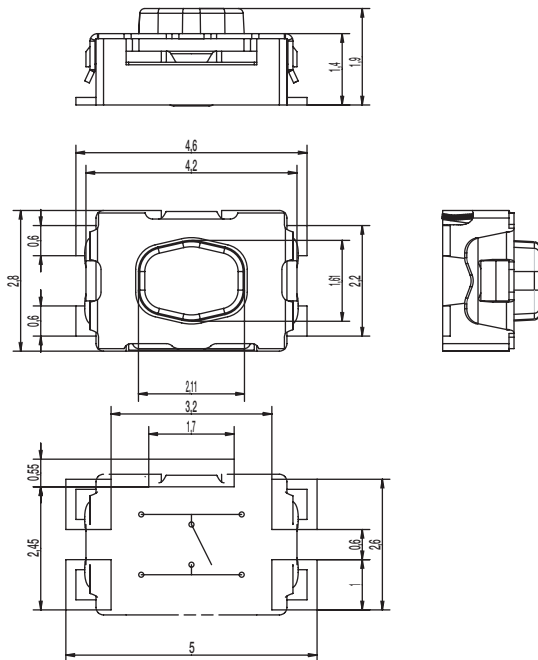


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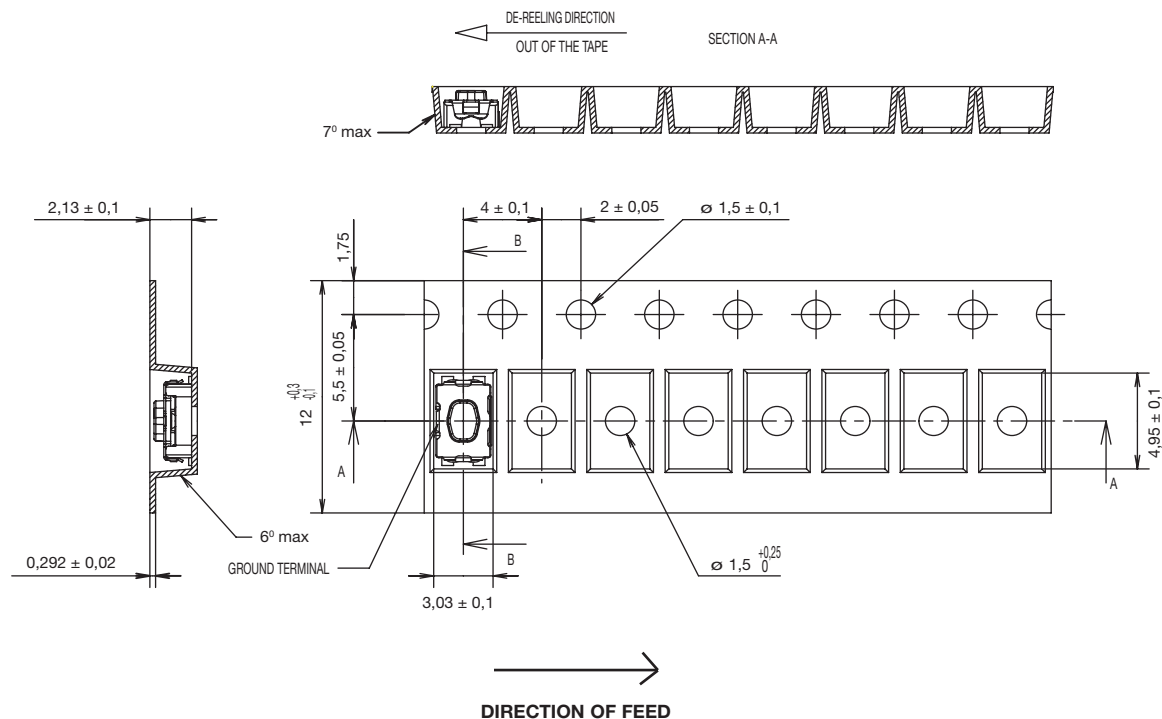
# KMR 2 Series Microminiature Tact Switch for SMT

KMR 2 Series - 1.9 mm height

PCB layout shown with ground pin option



## TAPE & REEL



First Angle  
Projection

Dimensions are shown: mm  
Specifications and dimensions subject to change