

KMR4 Series

Micro Miniature Tactile Switch for SMT

4.6 x 2.8 mm, with 2.5 mm Height Actuator



Description

The KMR4 series microminiature SMT top actuated switch has ultra-low current capabilities and is ideal for industrial, medical and automotive applications. It is a long-lasting switch with an excellent tactile feel, even when used in the harshest environments.

Features & Benefits

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

Applications

- Transportation
- Industrial electronics
- Medical equipment

Specifications

Function	Momentary action
Contact Arrangement	1 make contact = SPST, N.O.
Terminals	Gullwing type for SMT
Sealing	IP40 ¹

Notes:
For IP67 versions, please refer to KMR7.

Electrical Characteristics

	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	1 mA ¹
Dielectric Strength	≥ 250 Vrms	
Contact Resistance	≤ 100mΩ	
Insulation Resistance	≥ 1 GΩ	
Bounce Time	≤ 3 ms	

Environmental Characteristics

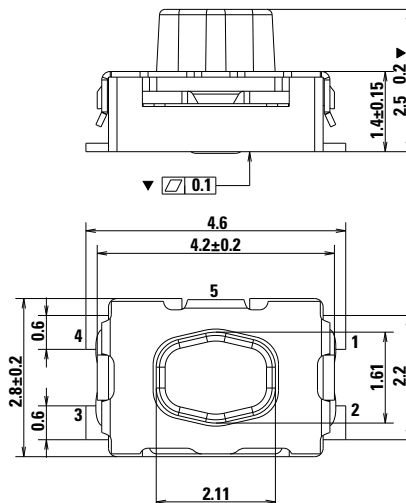
Operating Temperature	-40°C to 85°C	-40°C to 125°C
Storage Temperature	-55°C to 85°C	-55°C to 125°C

Process

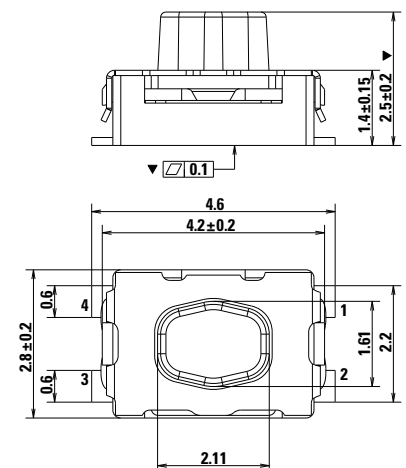
Soldering	Lead free reflow soldering process in accordance with IEC 61760-1.
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Notes:
1. For ULC version minimum current is 1μA at 1.8 VDC
2. Specifications listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

G - Ground Pin



NG - No Ground Pin

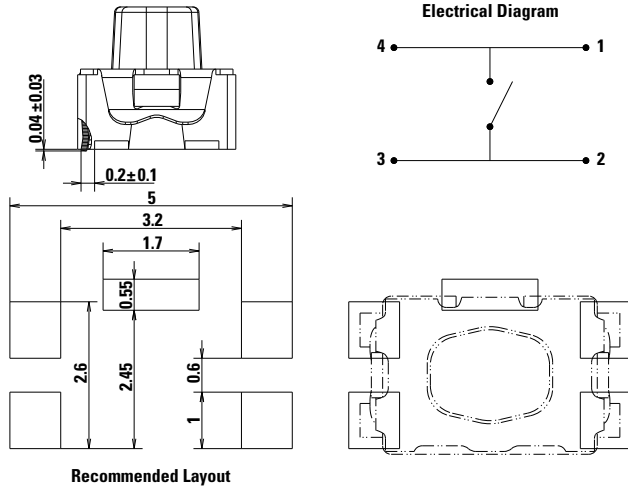


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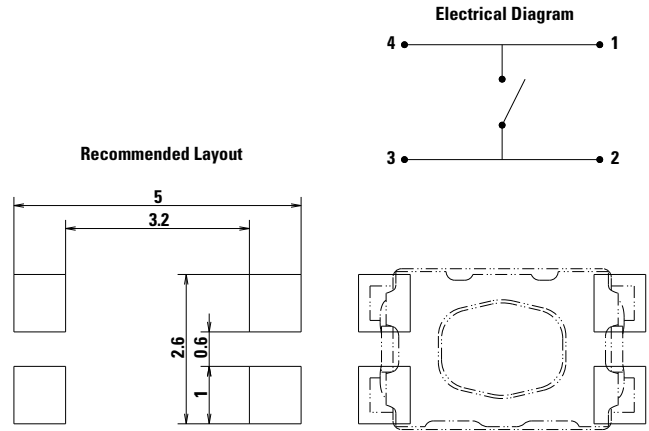
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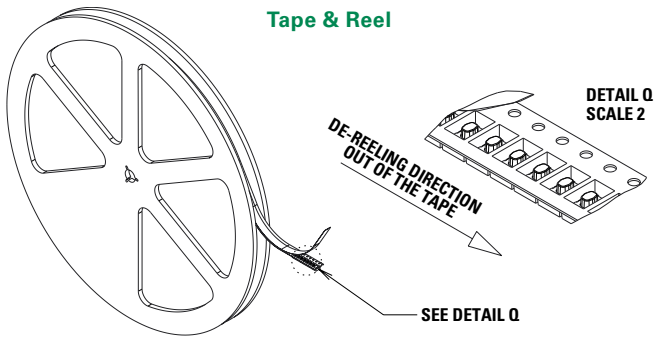
G - Ground Pin



NG - No Ground Pin



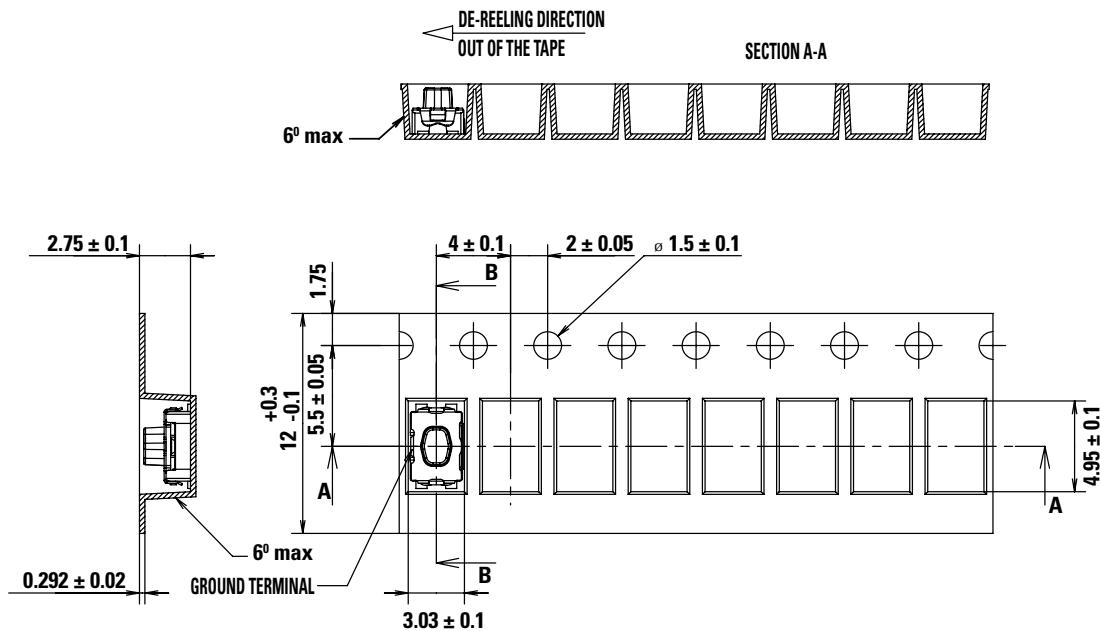
Tape & Reel



Packaging Details

Type	Tape & reel
Number of Parts in Packaging	6,000
Other information	Tape and reel per EIA 481, External diameter 330+/- 2mm
Transport Conditions	According to specification NF H00-060

Tape & Reel



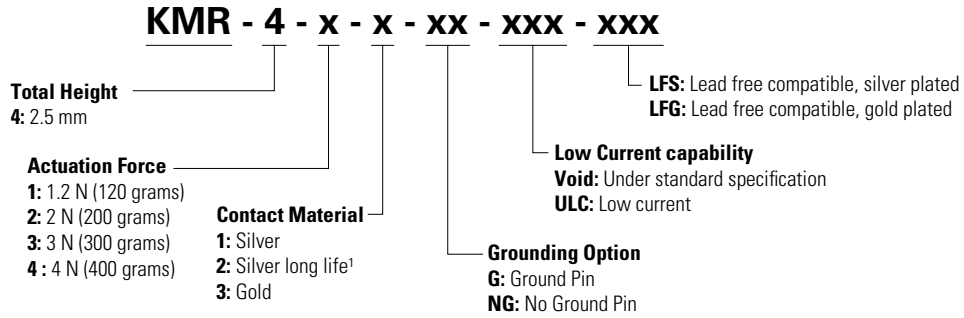
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Ordering Number

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



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Mechanical Characteristics

Supply Status	LITTELFUSE Orderable Part Number	Description	Contact & Terminals Plating	Ground Pin	Operating Force Fa (Newtons)	Tactile ratio (Min)	Operating Life (operations)	Electrical Travel (mm)
✓	Y78B41110FP	KMR411G LFS	Silver	Yes	1.2±0.3	Min 20%	100,000	0.2±0.1
✓	Y78B41114FP	KMR411G ULC LFS	Silver	Yes	1.2±0.3	Min 20%	100,000	0.2±0.1
✓	Y78B41124FP	KMR411NG ULC LFS	Silver	No	1.2±0.3	Min 20%	100,000	0.2±0.1
ORO	Y78B41314FP	KMR413G ULC LFG	Gold	Yes	1.2±0.3	Min 20%	100,000	0.2±0.1
ORO	Y78B41324FP	KMR413NG ULC LFG	Gold	No	1.2±0.3	Min 20%	100,000	0.2±0.1
✓	Y78B42110FP	KMR421G LFS	Silver	Yes	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42114FP	KMR421G ULC LFS	Silver	Yes	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42120FP	KMR421NG LFS	Silver	No	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42124FP	KMR421NG ULC LFS	Silver	No	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42310FP	KMR423G LFG	Gold	Yes	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42314FP	KMR423G ULC LFG	Gold	Yes	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42320FP	KMR423NG LFG	Gold	No	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B42324FP	KMR423NG ULC LFG	Gold	No	2±0.5	Min 25%	100,000	0.25±0.1
✓	Y78B43110FP	KMR431G LFS	Silver	Yes	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43114FP	KMR431G ULC LFS	Silver	Yes	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43120FP	KMR431NG LFS	Silver	No	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43124FP	KMR431NG ULC LFS	Silver	No	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43125FP	KMR431NG ULC SPD LFS	Silver	No	3.3±0.9	Min 30%	50,000	0.3±0.1
✓	Y78B43210FP	KMR432G LFS	Silver	Yes	3±0.75	Min 25%	300,000	0.3±0.1
✓	Y78B43214FP	KMR432G ULC LFS	Silver	Yes	3±0.75	Min 25%	300,000	0.3±0.1
ORO	Y78B43220FP	KMR432NG LFS	Silver	No	3±0.75	Min 25%	300,000	0.3±0.1
✓	Y78B43224FP	KMR432NG ULC LFS	Silver	No	3±0.75	Min 25%	300,000	0.3±0.1
✓	Y78B43310FP	KMR433G LFG	Gold	Yes	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43314FP	KMR433G ULC LFG	Gold	Yes	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43320FP	KMR433NG LFG	Gold	No	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B43324FP	KMR433NG ULC LFG	Gold	No	3±0.75	Min 25%	100,000	0.3±0.1
✓	Y78B44110FP	KMR441G LFS	Silver	Yes	4±1	Min 25%	100,000	0.35±0.1
✓	Y78B44114FP	KMR441G ULC LFS	Silver	Yes	4±1	Min 25%	100,000	0.35±0.1
✓	Y78B44120FP	KMR441NG LFS	Silver	No	4±1	Min 25%	100,000	0.35±0.1
✓	Y78B44124FP	KMR441NG ULC LFS	Silver	No	4±1	Min 25%	100,000	0.35±0.1
✓	Y78B44210FP	KMR442G LFS	Silver	Yes	4±1	Min 25%	200,000	0.35±0.1
✓	Y78B44214FP	KMR442G ULC LFS	Silver	Yes	4±1	Min 25%	200,000	0.35±0.1
✓	Y78B44220FP	KMR442NG LFS	Silver	No	4±1	Min 25%	200,000	0.35±0.1
✓	Y78B44224FP	KMR442NG ULC LFS	Silver	No	4±1	Min 25%	200,000	0.35±0.1
✓	Y78B44310FP	KMR443G LFG	Gold	Yes	4±1	Min 25%	100,000	0.35±0.1
✓	Y78B44314FP	KMR443G ULC LFG	Gold	Yes	4±1	Min 25%	100,000	0.35±0.1
✓	Y78B44320FP	KMR443NG LFG	Gold	No	4±1	Min 25%	100,000	0.35±0.1

Notes: Supply status: ✓ Available for ordering;
 ORO: Available On Request Only. Please contact your Littelfuse representative for details.

Liability Limitation

This datasheet does not provide enough information for applications that require a certain level of quality or safety such as automotive, medical systems, or safety equipment. Please contact customer service for the contractual specification package.

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