

KMR2 Series

Micro Miniature Tactile Switch for SMT 4.2 x 2.2 mm,
with 1.9 mm Height Actuator



Description

The KMR2 series of micro miniature tactile switches for SMT are 1.9 mm high momentary action tactile switches which are available with a variety of operating forces and in a range of electrical lifespans, depending on the model. The KMR2 series has ultra low current capabilities and is designed to give users a positive adaptable tactile feeling, ideal for industrial, medical and automotive applications.

Features & Benefits

- Small footprint
- Good tactile feedback
- Ultra low current capabilities
- IP40
- Compatible with lead free reflow soldering process of SMT devices
- Low halogen, RoHS and REACH compliant

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 KMR6.

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	≤ 100 mΩ	
Insulation Resistance	≥ 1 GΩ	
Bounce Time	≤ 3 ms	

Environmental Characteristics

	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

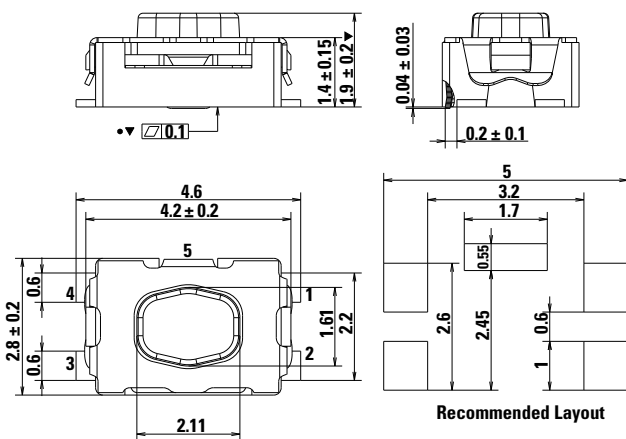
Process

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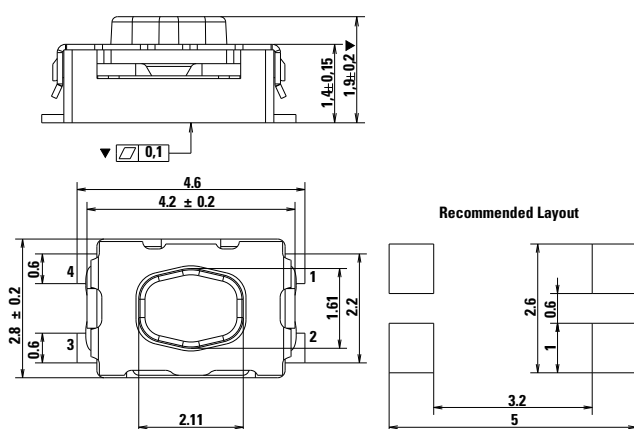
Notes:

- For ULC version minimum current is 1µA at 1.8 VDC
 - Specifications listed above are for switches with standard options.
- For information on specific and custom switches, consult Customer Service Center.

G - Ground Pin Dimensions (mm)



NG - No Ground Pin Dimensions (mm)

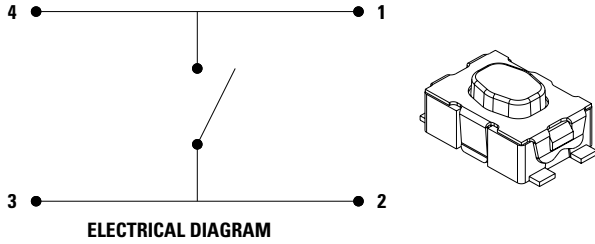


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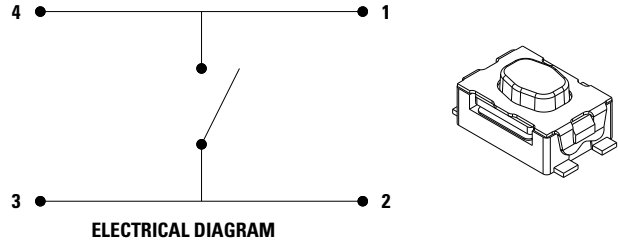
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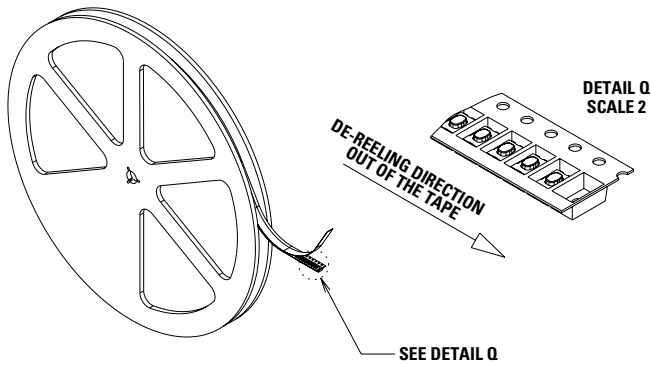
G Terminations (mm)



NG Terminations (mm)



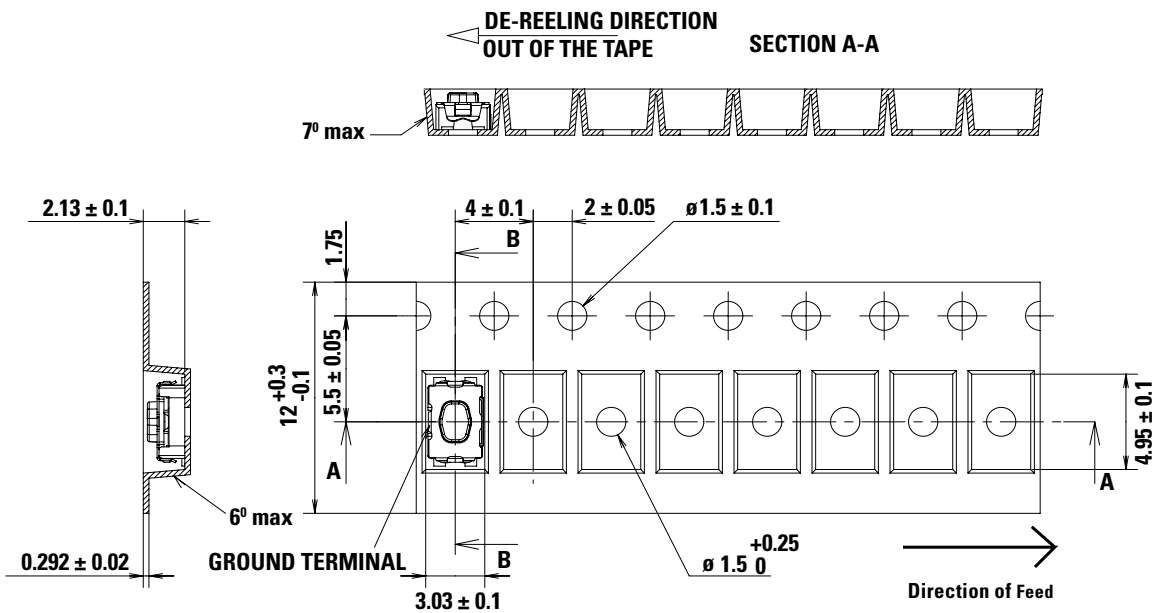
Tape & Reel



Packaging Details

Type	Tape & reel
Number of Parts in Packaging	7,000
Other Information	Tape and reel per EIA 481
Transport Conditions	According to specification NF H00-060

Tape & Reel Dimensions (mm)



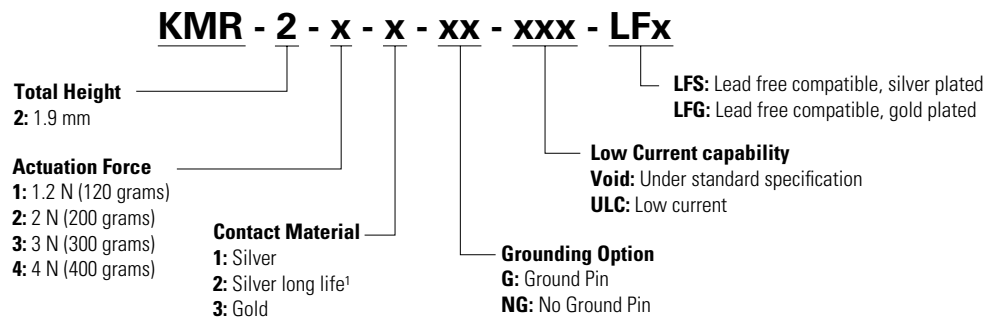
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Ordering Number

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category. However, please note that not all combinations of these options are feasible. For any part number different from those listed below, please consult your local representative



Notes

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

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Micro Miniature Tactile Switch for SMT 4.2 x 2.2 mm, with 1.9 mm Height Actuator



Mechanical Characteristics

Supply status	Littelfuse Orderable Part Number	Description	Contact & Terminals Plating	Ground Pin	Operating Force Fa (Newton)	Tactile ratio (Min)	Operating Life (operations)	Electrical Travel (mm)
✓	Y78B21110FP	KMR211G LFS	Silver	Yes	1.2±0.3	Min 20%	200,000	0.2±0.1
✓	Y78B21120FP	KMR211NG LFS	Silver	No	1.2±0.3	Min 20%	200,000	0.2±0.1
✓	Y78B21124FP	KMR211NG ULC LFS	Silver	No	1.2±0.3	Min 20%	200,000	0.2±0.1
✓	Y78B21310FP	KMR213G LFG	Gold	Yes	1.2±0.3	Min 20%	200,000	0.2±0.1
ORO	Y78B21314FP	KMR213G ULC LFG	Gold	Yes	1.2±0.3	Min 20%	200,000	0.2±0.1
ORO	Y78B21320FP	KMR213NG LFG	Gold	No	1.2±0.3	Min 20%	200,000	0.2±0.1
ORO	Y78B21324FP	KMR213NG ULC LFG	Gold	No	1.2±0.3	Min 20%	200,000	0.2±0.1
✓	Y78B22110FP	KMR221G LFS	Silver	Yes	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B22114FP	KMR221G ULC LFS	Silver	Yes	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B22120FP	KMR221NG LFS	Silver	No	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B22124FP	KMR221NG ULC LFS	Silver	No	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B22310FP	KMR223G LFG	Gold	Yes	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B22320FP	KMR223NG LFG	Gold	No	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B22324FP	KMR223NG ULC LFG	Gold	No	2±0.5	Min 30%	200,000	0.25±0.1
✓	Y78B23110FP	KMR231G LFS	Silver	Yes	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B23114FP	KMR231G ULC LFS	Silver	Yes	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B23120FP	KMR231NG LFS	Silver	No	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B23124FP	KMR231NG ULC LFS	Silver	No	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B23210FP	KMR232G LFS	Silver	Yes	3±0.75	Min 30%	300,000	0.25±0.1
✓	Y78B23214FP	KMR232G ULC LFS	Silver	Yes	3±0.75	Min 30%	300,000	0.25±0.1
✓	Y78B23220FP	KMR232NG LFS	Silver	No	3±0.75	Min 30%	300,000	0.25±0.1
✓	Y78B23224FP	KMR232NG ULC LFS	Silver	No	3±0.75	Min 30%	300,000	0.25±0.1
✓	Y78B23310FP	KMR233G LFG	Gold	Yes	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B23320FP	KMR233NG LFG	Gold	No	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B23510FP	KMR235G LFG	Gold	Yes	3±0.75	Min 30%	150,000	0.25±0.1
✓	Y78B24110FP	KMR241G LFS	Silver	Yes	4±1	Min 30%	100,000	0.3±0.1
✓	Y78B24114FP	KMR241G ULC LFS	Silver	Yes	4±1	Min 30%	100,000	0.3±0.1
✓	Y78B24120FP	KMR241NG LFS	Silver	No	4±1	Min 30%	100,000	0.3±0.1
✓	Y78B24124FP	KMR241NG ULC LFS	Silver	No	4±1	Min 30%	100,000	0.3±0.1
✓	Y78B24210FP	KMR242G LFS	Silver	Yes	4±1	Min 30%	200,000	0.3±0.1
✓	Y78B24214FP	KMR242G ULC LFS	Silver	Yes	4±1	Min 30%	200,000	0.3±0.1
✓	Y78B24220FP	KMR242NG LFS	Silver	No	4±1	Min 30%	200,000	0.3±0.1
✓	Y78B24224FP	KMR242NG ULC LFS	Silver	No	4±1	Min 30%	200,000	0.3±0.1
✓	Y78B24310FP	KMR243G LFG	Gold	Yes	4±1	Min 30%	100,000	0.3±0.1
ORO	Y78B24320FP	KMR243NG LFG	Gold	No	4±1	Min 30%	100,000	0.3±0.1

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

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

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.

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.