

## Type 31 Series

### Key Features

- Versatile Design can be Customised to Suit Your Requirements
- SPST Switch Style
- Low Cost Twist Tab Model
- PC Mounting Bracket
- Insulated Shafts Up To 50mm
- Non Linear Laws
- Available with Choice of Bush Styles
- Eyelet or PC Terminations



TE Connectivity will customize these neat 16mm diameter control potentiometers to suit your requirements. They comprise a printed carbon resistance element with 0.25 W current handling and are available with various bush, termination and spindle styles.

As an additional feature, the range includes a twist tab design with mounting bracket applications for use where low price is an important consideration.

### Characteristics - Electrical

|                                   |   |
|-----------------------------------|---|
| <b>Resistance Range (Law):</b>    | 1K Ohm to 1M Ohm Linear<br>4K7 to 470K (Non Linear) |
| <b>Resistance Values:</b>         | 1, 2.2 and 4.7 per decade                           |
| <b>Resistance Tolerance:</b>      | ± 20% (± 10% by selection)                          |
| <b>Rated Dissipation at 40°C:</b> | 0.25W (Linear), 0.125W (Non Linear)                 |
| <b>Limiting Element Voltage:</b>  | 350Vdc or ac RMS                                    |
| <b>Electrical Rotation:</b>       | 267° NOM without switch, 240° NOM with switch       |
| <b>Terminal Resistance:</b>       | 5 Ohms, Max.  |
| <b>Noise (ENR):</b>               | 2% Max. (Linear), 3% Max. (Non Linear)              |
| <b>Insulation Resistance:</b>     | 4 G Ohms Min.                                       |
| <b>Voltage Proof:</b>             | 500 Vac peak  |

### Characteristics - Mechanical

|                             |               |
|-----------------------------|---------------|
| <b>Operating Torque:</b>    | 15 mNm, Max.  |
| <b>Mechanical Rotation:</b> | 270° Nominal  |
| <b>End Stop Torque:</b>     | 350 mNm, Max. |

### Characteristics - Environmental

|  |   |
|--|---|
| <b>Limits of Resistance Change:</b>                                | 15% (After 1000 hours endurance)          |
| <b>Temperature characteristics of resistance ( 20°C to 70°C ):</b> | 5%  |
| <b>Bump Severity:</b>  | 390m/s <sup>2</sup> , 4000 Bumps          |
| <b>Vibration Severity:</b>   | 10 - 500 Hz, 0.75mm or 98m/s <sup>2</sup> |
| <b>Climatic Category:</b>  | 8 days @ 36°C 82% RH DR < 15%             |
| <b>Mechanical Endurance:</b>                                       | 15000 Operations ( Min )                  |

## Type 31 Series

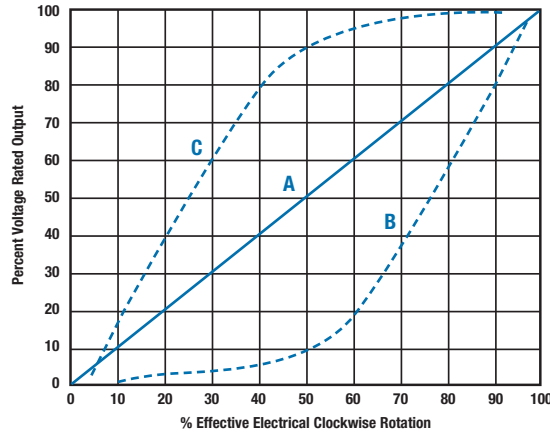
### DIY Design

The 31 Series can be customised to suit your individual requirements with features such as detent action, track centre tap etc.

Please call our technical sales team to discuss variations on these 16mm diameter devices.

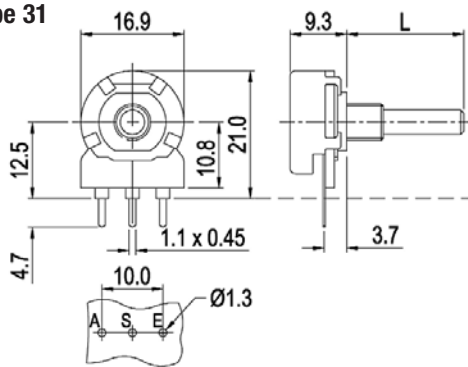
### Resistance Laws

A - Linear  
B - Log  
C - Inverse Log

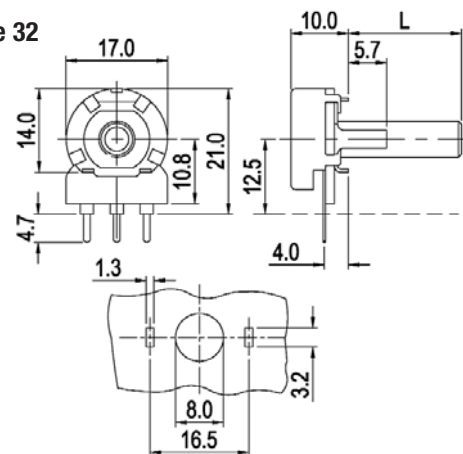


### Dimensions

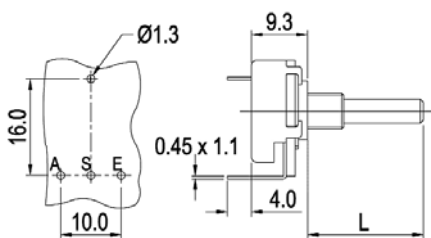
#### Type 31



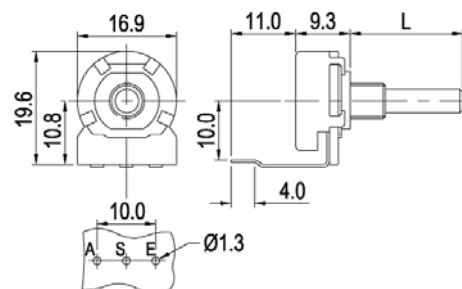
#### Type 32



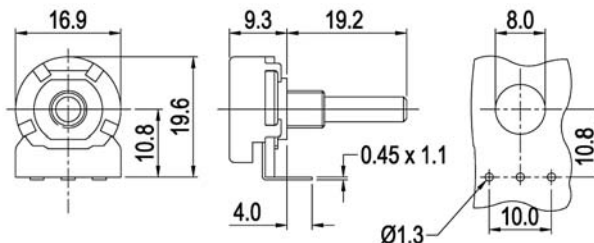
#### Type 34 (Non Switched only)



#### Type 35 (Non Switched only)

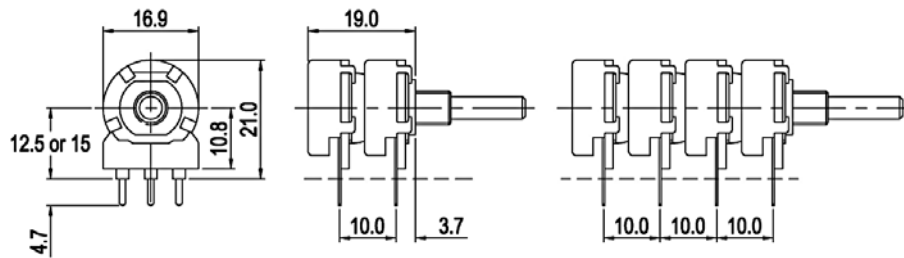


#### Type 36

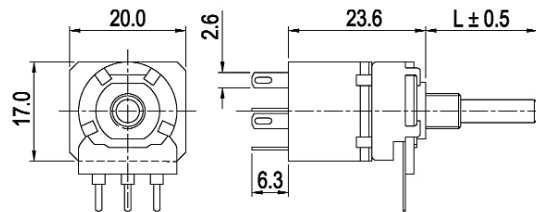


### Type 31 Series

#### Multi Ganged Types



#### Switched Types



#### How to Order

|   |   |          |   |            |   |          |  |           |          |
|---|---|----------|---|------------|---|----------|--|-----------|----------|
| <b>31</b>   | <b>E</b>  | <b>X</b> | <b>A</b>  | <b>104</b> | <b>M</b>  | <b>W</b> | <b>B</b>   | <b>25</b> | <b>B</b> |
| <b>Potentiometer Type</b>   | <b>Customer Identity</b>  |          | <b>Resistance Value</b>   |            | <b>Bush Details</b>   |          | <b>Shaft Length</b>  |           |          |
| 31 - Std Spindle Style<br>32 - No Bush Mtg Bracket<br>33 - Spindle with Integ Knurled Knob 4mm State Colour<br>34 - Rev Mount with mounting pin and PC terminals swept down to board<br>35 - Rev Mount with PC Terminals swept down to board. No terminal on case<br>36 - Forward mount with PC pins swept forward to parallel to shaft<br>37 - Dual gang style single shaft same value / tol on each section<br>38 - Single Spindle Pot with centre detent | S- Standard<br>X - Customer Special See Drawing (provide copy with order) |          | The first two digits are significant figures of resistance value and the third denotes the number of zeros following.<br><br>e.g. 4.7K Ohms: 472<br>22K Ohms: 223<br>100K Ohms: 104 |            | N - Black plastic 8mm A/F - M10 with 4mm hole<br>P - Diecast M7 x 6mm 4mm hole<br>S - Diecast M10 x 8mm 6.35mm hole<br>T - Diecast M7 x 9mm 4mm hole<br>U - No Bush<br>V - Diecast M10 x 8mm 6mm hole<br>W - Black plastic M10 8mm M10 6mm hole |          | FMF in mm<br><br>Standard Lengths are 15, 20, 25 and 50mm  |           |          |
| <b>Termination Style</b>  | <b>Resistor Law</b>   |          | <b>Resistance Tolerance</b>   |            | <b>Shaft Style</b>  |          | <b>Switch Details</b>  |           |          |
| E - Std Eyelet<br>P - Std PC 12.5mm MH<br>R - Long PC 15mm MH<br>X - Extra long for rear PC Mtg<br>S - PC bend forward at 90°   | A - Linear<br>B - Log<br>C - Inv. Log                                     |          | K - 10%<br>M - 20%  |            | A - Plain 6mm<br>B - Slotted 6mm<br>C - Flatted 6mm (5mm A/F)<br>D - Flatted 6mm deep flat 4mm A/F<br>E - Plain 4mm<br>F - Full 6.35mm flat - special angle<br>G - Flatted 4mm<br>H - Plain 6.35mm<br>J - Flatted 6.35mm (4.6mm A/F)            |          | A - DPST - Demko approved 4A/250V AC<br>B - SPST - Eyelet Termination<br>C - DPDT - Changeover Switch<br>T - SPST - PC Push Switch |           |          |

TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.  
 Other logos, product and Company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this datasheet, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this datasheet are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)