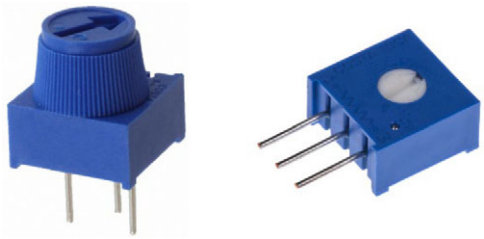
# 3/8" Square Single-Turn Cermet Trimmer



## FEATURES

- Industrial grade
- Wide ohmic range (10 Ω to 2 MΩ)
- Top and side adjust styles
- Easy to set with knob option (finger adjust)
- Available with extended shaft
- Available with cross-slot rotor
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

## LINKS TO ADDITIONAL RESOURCES

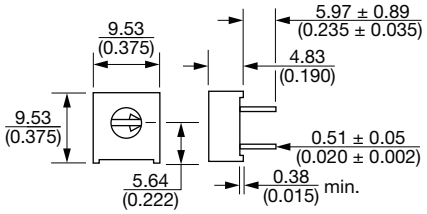
3D Models

The M61 trimming potentiometer is available in several pin configurations for top or side adjustment and with a choice of knob styles for finger setting.

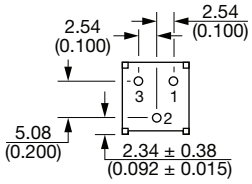
**DIMENSIONS** in millimeters (± 0.5 mm)

**TOP ADJUST: STYLE F, G, K, P, R, U, V, Y**

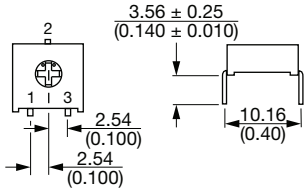
**COMMON DIMENSIONS**



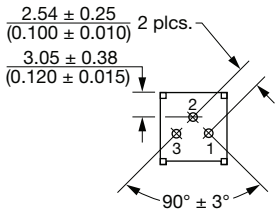

**M61F**



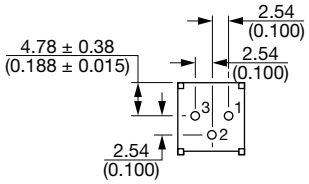

**M61G**



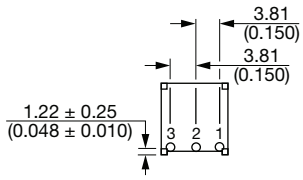

**M61K**



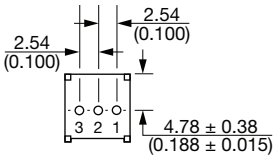

**M61P**




**M61R**

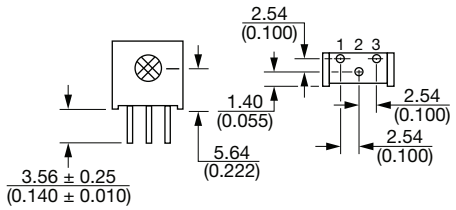



**M61U**

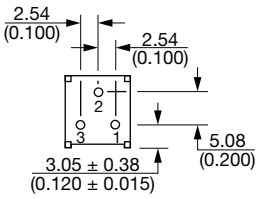


## DIMENSIONS in millimeters (± 0.5 mm)

### M61V

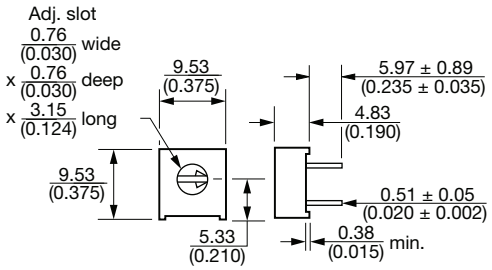



### M61Y

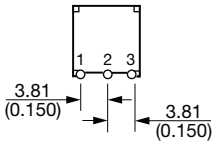



**TOP ADJUST: STYLE M, T**

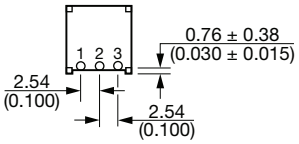
**COMMON DIMENSIONS**




### M61M

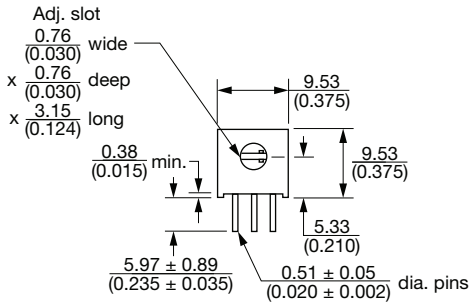



### M61T

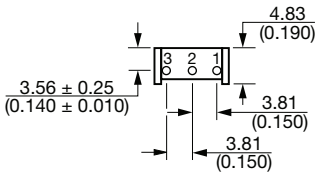



**SIDE ADJUST: STYLE B, C, J, X**

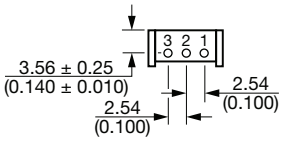
**COMMON DIMENSIONS**



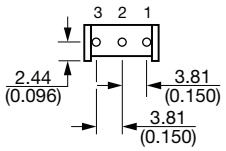

### M61B



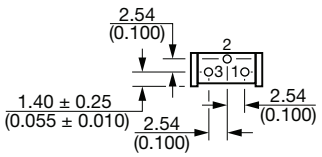

### M61C




### M61J



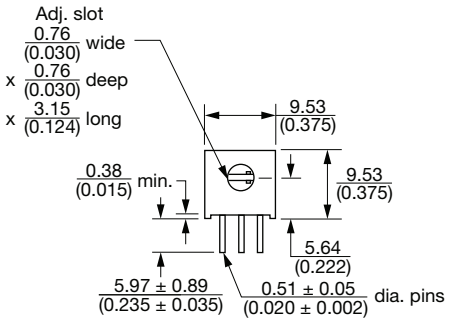

### M61X



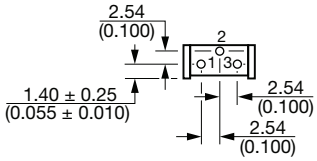
## DIMENSIONS in millimeters (± 0.5 mm)

### SIDE ADJUST: STYLE H, S, W

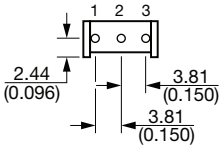
#### COMMON DIMENSIONS



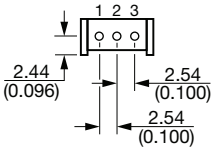

#### M61H




#### M61S

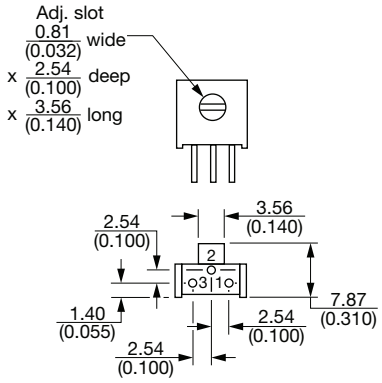



#### M61W

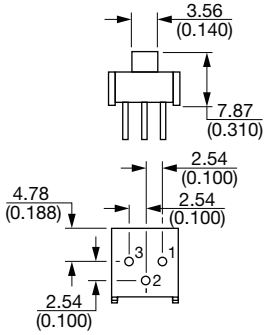



### LONG SHAFT OPTION: T614
### TOP AND SIDE ADJUST: STYLE H, X, P

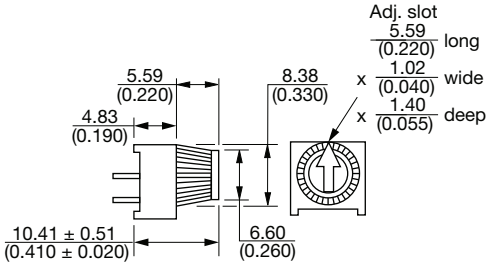
#### M61H.....T614, M61X.....T614




#### M61P.....T614

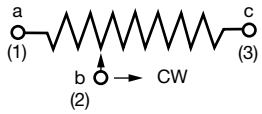



### KNOB OPTION [1]: T607
### TOP ADJUST: STYLE F, P, X




**Note**

(1) Knob option not recommended for side load applications

| ELECTRICAL SPECIFICATIONS | |
|---|---|
| Resistive element | Cermet |
| Electrical travel | 280° nom. |
| Resistance range | 10 Ω to 2 MΩ<br>(see “Standard Resistance Element Data” table) |
| Standard series | 1 - 2 - 5 |
| Tolerance standard | ± 10 % |
| Circuit diagram |  |
| Power rating linear | 0.5 W at +85 °C |
| | 0 W at +125 °C |
| Temperature coefficient | ± 100 ppm |
| Limiting element voltage | 300 $V_{max.}$ |
| Voltage divider adjustability<br>Rheostat adjustability | ± 0.05 %<br>± 0.15 % |
| Contact resistance variation | 2 % or 3 Ω max. (whichever is greater) |
| End resistance (typical) | 2 Ω max. |
| Dielectric strength | 900 $V_{AC}$ |
| Insulation resistance | 1000 MΩ min. at 500 $V_{DC}$ |

| MECHANICAL SPECIFICATIONS | |
|---|---|
| Mechanical travel | 310 mon. |
| Operating torque (max. Ncm) | 3.5 |
| Unit weight (typical) | 0.85 g |
| Wiper (actual travel) | Positioned at approximately 50 % |
| Terminals | Pure Sn (code e3) |

| ENVIRONMENTAL SPECIFICATIONS | |
|---|---|
| Temperature range | -55 °C to +125 °C |

| PERFORMANCES | | |
|---|---|---|
| **TESTS** | **CONDITIONS** | **TYPICAL VALUES AND DRIFTS** |
| Load life | 1000 h at rated power,<br>ambient temperature +85 °C | Total resistance shift = ± 3 %<br>Contact resistance variation = 3 Ω or ± 3 %<br>whichever is greater |
| Humidity | MIL-STD-202 method 103<br>96 hours | Total resistance shift = ± 2 %<br>Insulation resistance = 10 MΩ |
| Rotational cycling | 200 cycles | Total resistance shift = ± 4 %<br>Contact resistance variation = 3 Ω or ± 3 %<br>whichever is greater |
| Shock | 100 *g* | Total resistance shift = ± 1 %<br>Voltage resistance shift = ± 1 % |
| Vibration | 30 *g* | Total resistance shift = ± 1 %<br>Voltage resistance shift = ± 1 % |

**Note**

- Nothing stated herein shall be construed as a guarantee of quality or durability

## STANDARD RESISTANCE

| RESISTANCE (Ω) | RESISTANCE CODE |
|---|---|
| 10 | 100 |
| 20 | 200 |
| 50 | 500 |
| 100 | 101 |
| 200 | 201 |
| 500 | 501 |
| 1000 | 102 |
| 2000 | 202 |
| 5000 | 502 |
| 10 000 | 103 |
| 20 000 | 203 |
| 25 000 | 253 |
| 50 000 | 503 |
| 100 000 | 104 |
| 200 000 | 204 |
| 250 000 | 254 |
| 500 000 | 504 |
| 1 000 000 | 105 |
| 2 000 000 | 205 |

## MARKING

- Vishay trademark
- Model
- Ohmic value
- Manufacturing date

## PACKAGING

In tube of 50 pieces code T20 (TU50)

## ORDERING INFORMATION (part number)

| M | 6 | 1 | Y | 1 | 0 | 3 | K | T | 2 | 0 | T | 6 | 0 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| MODEL | STYLE | OHMIC VALUE | TOLERANCE | PACKAGING | SPECIAL NUMBER |
|---|---|---|---|---|---|
| **M61** | **B, C, E, G, H, J, K, M, P, R, S, T, U, V, W, X, Y** | From 10 Ω to 2 MΩ<br>**103** = 10 kΩ | **K** = ± 10 % | **T20** = tube<br>50 pieces | (If applicable)<br>**T614** = long shaft option<br>**T607** = knob option (1) |

**Note**

(1) Not recommended for side load application

## DESCRIPTION (for information only)

| M61 | Y | 10K | 10 % | T607 | T20 | e3 |
|---|---|---|---|---|---|---|
| MODEL | STYLE | VALUE | TOLERANCE | SPECIAL | PACKAGING | LEAD (Pb)-FREE |

## RELATED DOCUMENTS

| APPLICATION NOTES | |
|---|---|
| Potentiometers and Trimmers | www.vishay.com/doc?51001 |
| Guidelines for Vishay Sfernice Resistive and Inductive Components | www.vishay.com/doc?52029 |

## ACCESSORIES

| | |
|---|---|
| Screwdrivers (to order separately) | www.vishay.com/doc?57015 |

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