

# Series 282

## 16mm Precision Rotary Potentiometer

- Conductive Plastic Element
- Extended Rotational Life (2 Million Cycles)
- Precision Linearity ( $\pm 2\%$ )
- Ingress Protection (IP65 & IP67 Options)
- Wide Operating Temperature Range
- Shaft and Bushing Length Options
- Terminal Options
- Continuous Rotation Available



### Description

The 282 Series robust construction provides the user with a long life, highly reliable precision product in a sealed housing which meets up IP standards. Options include various terminal configurations, shaft and bushing lengths, shaft styles, resistance values and tolerances, and various rotation angles to meet design requirements.

### Ordering Information

| Series  | Terminal Styles           | Bushing Length "A" | Shaft Length "L" | Shaft Trim | Resistance Code | Resistance Tolerance | Linearity                 | IP Rating | Rotational Angle   | A/R Lug Options  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
|---|---------------------------|--------------------|------------------|------------|-----------------|----------------------|---------------------------|-----------|--------------------|--|--|-------------------------------|-------|---|----------------|---|----------------|---|----------------|----------------------------|-----------------|--------------------------------|-----------------|--|--|-------------------------------|-------|------|--------------|-------|--------------|---|--------------|-----|--------------|------------------------|---------------|----------------------|---------|------------------------------|----|--|-------|------|------------|-------|--------------|---------|----------------|---|--------------|------|---------------|-----|---------------|---|----------------|------|----------------|---|------------|------|------------|---|------|------|-------|--|---|------|-------|---|------------------|------|-----------------|------|--------|
| 282   | T                         | A                  | A                | R          | 103             | A                    | 2                         | 5         | B                  | 1  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <table border="1"> <thead> <tr> <th>Code</th> <th>Spec</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>Solder lug</td> </tr> <tr> <td>S</td> <td>Solder lug formed to rear</td> </tr> <tr> <td>U</td> <td>PC formed to front</td> </tr> </tbody> </table>   |                           | Code               | Spec             | T          | Solder lug      | S                    | Solder lug formed to rear | U         | PC formed to front | <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>.625" (15.8mm)</td> </tr> <tr> <td>2</td> <td>.750" (18.4mm)</td> </tr> <tr> <td>3</td> <td>.875" (22.2mm)</td> </tr> <tr> <td>4</td> <td>1.000" (25.4mm)</td> </tr> <tr> <td>5</td> <td>1.125" (28.5mm)</td> </tr> <tr> <td colspan="2"><i>Diameter: 1/4"</i></td> </tr> <tr> <td colspan="2"><i>Length increment: 1/8"</i></td> </tr> <tr> <td>A</td> <td>10mm (.393")</td> </tr> <tr> <td>B</td> <td>15mm (.590")</td> </tr> <tr> <td>C</td> <td>20mm (.787")</td> </tr> <tr> <td>D</td> <td>25mm (.984")</td> </tr> <tr> <td>E</td> <td>30mm (1.181")</td> </tr> <tr> <td colspan="2"><i>Diameter: 6mm</i></td> </tr> <tr> <td colspan="2"><i>Length increment: 5mm</i></td> </tr> </tbody> </table> |  | Code                          | Spec. | 1 | .625" (15.8mm) | 2 | .750" (18.4mm) | 3 | .875" (22.2mm) | 4                          | 1.000" (25.4mm) | 5                              | 1.125" (28.5mm) | <i>Diameter: 1/4"</i>  |  | <i>Length increment: 1/8"</i> |       | A    | 10mm (.393") | B     | 15mm (.590") | C | 20mm (.787") | D   | 25mm (.984") | E                      | 30mm (1.181") | <i>Diameter: 6mm</i> |         | <i>Length increment: 5mm</i> |    | <table border="1"> <thead> <tr> <th>Code</th> <th>Resistance</th> </tr> </thead> <tbody> <tr> <td>102</td> <td>1 k<math>\Omega</math></td> </tr> <tr> <td>252</td> <td>2.5 k<math>\Omega</math></td> </tr> <tr> <td>502</td> <td>5 k<math>\Omega</math></td> </tr> <tr> <td>103</td> <td>10 k<math>\Omega</math></td> </tr> <tr> <td>503</td> <td>50 k<math>\Omega</math></td> </tr> <tr> <td>104</td> <td>100 k<math>\Omega</math></td> </tr> <tr> <td>504</td> <td>500 k<math>\Omega</math></td> </tr> </tbody> </table> |       | Code | Resistance | 102   | 1 k $\Omega$ | 252     | 2.5 k $\Omega$ | 502   | 5 k $\Omega$ | 103  | 10 k $\Omega$ | 503 | 50 k $\Omega$ | 104   | 100 k $\Omega$ | 504  | 500 k $\Omega$ | <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>IP54</td> </tr> <tr> <td>6</td> <td>IP67</td> </tr> </tbody> </table> |            | Code | Spec.      | 5   | IP54 | 6    | IP67  | <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Left side (10mm)</td> </tr> <tr> <td>2</td> <td>Left side (8mm)</td> </tr> <tr> <td>3</td> <td>No lug</td> </tr> </tbody> </table> |   | Code | Spec. | 1 | Left side (10mm) | 2    | Left side (8mm) | 3    | No lug |
| Code  | Spec                      |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| T   | Solder lug                |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| S   | Solder lug formed to rear |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| U   | PC formed to front        |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Spec.                     |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 1   | .625" (15.8mm)            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 2   | .750" (18.4mm)            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 3   | .875" (22.2mm)            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 4   | 1.000" (25.4mm)           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 5   | 1.125" (28.5mm)           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Diameter: 1/4"</i>   |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Length increment: 1/8"</i>   |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| A   | 10mm (.393")              |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| B   | 15mm (.590")              |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| C   | 20mm (.787")              |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| D   | 25mm (.984")              |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| E   | 30mm (1.181")             |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Diameter: 6mm</i>  |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Length increment: 5mm</i>  |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Resistance                |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 102   | 1 k $\Omega$              |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 252   | 2.5 k $\Omega$            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 502   | 5 k $\Omega$              |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 103   | 10 k $\Omega$             |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 503   | 50 k $\Omega$             |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 104   | 100 k $\Omega$            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 504   | 500 k $\Omega$            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Spec.                     |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 5   | IP54                      |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 6   | IP67                      |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Spec.                     |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 1   | Left side (10mm)          |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 2   | Left side (8mm)           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 3   | No lug                    |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>.250" (6.35mm)</td> </tr> <tr> <td>3</td> <td>.375" (9.53mm)</td> </tr> <tr> <td>4</td> <td>.500" (12.7mm)</td> </tr> <tr> <td colspan="2"><i>Diameter: 3/8" - 32UNEF-2A</i></td> </tr> <tr> <td colspan="2"><i>Length increment: 1/8"</i></td> </tr> <tr> <td>A</td> <td>5.0mm (.196")</td> </tr> <tr> <td>B</td> <td>7.5mm (.295")</td> </tr> <tr> <td>C</td> <td>10.0mm (.393")</td> </tr> <tr> <td colspan="2"><i>Diameter: M9 x .75P</i></td> </tr> <tr> <td colspan="2"><i>Length increment: 2.5mm</i></td> </tr> </tbody> </table> |                           | Code               | Spec.            | 2          | .250" (6.35mm)  | 3                    | .375" (9.53mm)            | 4         | .500" (12.7mm)     | <i>Diameter: 3/8" - 32UNEF-2A</i>  |  | <i>Length increment: 1/8"</i> |       | A | 5.0mm (.196")  | B | 7.5mm (.295")  | C | 10.0mm (.393") | <i>Diameter: M9 x .75P</i> |                 | <i>Length increment: 2.5mm</i> |                 | <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> <th>Dia.</th> </tr> </thead> <tbody> <tr> <td>R*</td> <td>Round</td> <td>6mm</td> </tr> <tr> <td>F</td> <td>Flatted</td> <td>6mm</td> </tr> <tr> <td>K</td> <td>Split Knurl (24 Teeth)</td> <td>6mm</td> </tr> <tr> <td>S</td> <td>Slotted</td> <td>6mm</td> </tr> <tr> <td>O*</td> <td>Round</td> <td>.250"</td> </tr> <tr> <td>L</td> <td>Flatted</td> <td>.250"</td> </tr> <tr> <td>D</td> <td>Slotted</td> <td>.250"</td> </tr> </tbody> </table> |  | Code                          | Spec. | Dia. | R*           | Round | 6mm          | F | Flatted      | 6mm | K            | Split Knurl (24 Teeth) | 6mm           | S                    | Slotted | 6mm                          | O* | Round  | .250" | L    | Flatted    | .250" | D            | Slotted | .250"          | <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>2</td> <td><math>\pm 2\%</math></td> </tr> </tbody> </table> |              | Code | Spec.         | 2   | $\pm 2\%$     | <table border="1"> <thead> <tr> <th>Code</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td><math>\pm 10\%</math></td> </tr> <tr> <td>B</td> <td><math>\pm 20\%</math></td> </tr> </tbody> </table> |                | Code | Spec.          | A   | $\pm 10\%$ | B    | $\pm 20\%$ | <table border="1"> <thead> <tr> <th>Code</th> <th>Total</th> <th>Electrical</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>250°</td> <td>240°</td> </tr> <tr> <td>B</td> <td>300°</td> <td>280°</td> </tr> <tr> <td>C</td> <td>360°</td> <td>340°</td> </tr> </tbody> </table> |      | Code | Total | Electrical   | A | 250° | 240°  | B | 300°             | 280° | C               | 360° | 340°   |
| Code  | Spec.                     |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 2   | .250" (6.35mm)            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 3   | .375" (9.53mm)            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 4   | .500" (12.7mm)            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Diameter: 3/8" - 32UNEF-2A</i>   |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Length increment: 1/8"</i>   |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| A   | 5.0mm (.196")             |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| B   | 7.5mm (.295")             |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| C   | 10.0mm (.393")            |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Diameter: M9 x .75P</i>  |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| <i>Length increment: 2.5mm</i>  |                           |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Spec.                     | Dia.               |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| R*  | Round                     | 6mm                |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| F   | Flatted                   | 6mm                |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| K   | Split Knurl (24 Teeth)    | 6mm                |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| S   | Slotted                   | 6mm                |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| O*  | Round                     | .250"              |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| L   | Flatted                   | .250"              |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| D   | Slotted                   | .250"              |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Spec.                     |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| 2   | $\pm 2\%$                 |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Spec.                     |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| A   | $\pm 10\%$                |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| B   | $\pm 20\%$                |                    |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| Code  | Total                     | Electrical         |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| A   | 250°                      | 240°               |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| B   | 300°                      | 280°               |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |
| C   | 360°                      | 340°               |                  |            |                 |                      |                           |           |                    |  |  |                               |       |   |                |   |                |   |                |                            |                 |                                |                 |  |  |                               |       |      |              |       |              |   |              |     |              |                        |               |                      |         |                              |    |  |       |      |            |       |              |         |                |   |              |      |               |     |               |   |                |      |                |   |            |      |            |   |      |      |       |  |   |      |       |   |                  |      |                 |      |        |

\*Not available with 360° rotation

## Electrical Specifications

| Parameter               | Conditions & Remarks | Min  | Max  | Unit       |
|-------------------------|----------------------|------|------|------------|
| Resistance Range        | Linear               | 1k   | 500k | $\Omega$   |
|                         | Audio                | 100k | 500k | $\Omega$   |
| Resistance Tolerance    | Standard             | -20  | +20  | %          |
|                         | Special              | -10  | +10  | %          |
| Dielectric Strength     | 1 minute             |      | 750  | VDC        |
| Power Rating (Standard) | @ 55°C               |      | 0.25 | watt       |
| Power Rating (Special)  | @ 75°C               |      | 0.50 | watt       |
| Operating Voltage       |                      |      | 500  | VDC        |
| Insulation Resistance   | 500 VDC              | 1000 |      | M $\Omega$ |
| Linearity               |                      | +2   | -2   | %          |

## Mechanical and Environmental

| Parameter                   | Conditions & Remarks                       | Min       | Max  | Unit   |
|-----------------------------|--|-----------|------|--------|
| Operating Temperature       |  | -40       | +125 | °C     |
| Storage Temperature         |  | -55       | +150 | °C     |
| Rotational Torque           |  | 20        | 180  | gf-cm  |
| Rotational Life             |  | 2,000,000 |      | cycles |
| Stop Strength               |  | 9         |      | kgf-cm |
| Mechanical Angle            | 250°, 300° & 360°                          |           |      |        |
| Vibration                   | 15 G, 10 to 2000 Hz                        |           |      |        |
| Push-Pull Strength of Shaft | 13.6 kg for 10 seconds                     |           |      |        |
| Ingress Protection Rating   | IP54 & IP67                                |           |      |        |
| Soldering Condition:        | Maximum temperature of 350°C for 5 seconds |           |      |        |
| Mounting Information        | Bushing mount                              |           |      |        |
| Packaging:                  | Standard tray packaging                    |           |      |        |

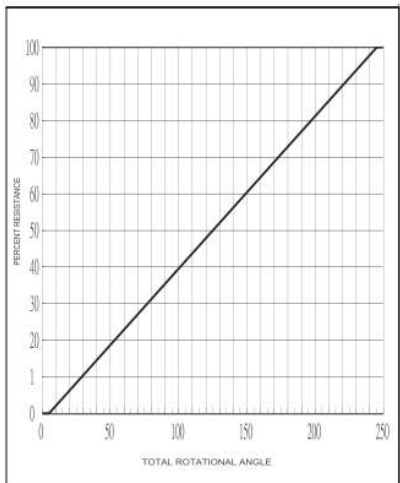
All testing is performed at room ambient conditions except as noted. Users should verify device actual performance in their specific applications.

This product is compliant to RoHS3 Directive 2015/863 Amendments of Annex II on 31 March 2015, and REACH SVHC Directive EC 1907/2006 Amendments of Annex XIV & Annex XVII on 15 January 2018.

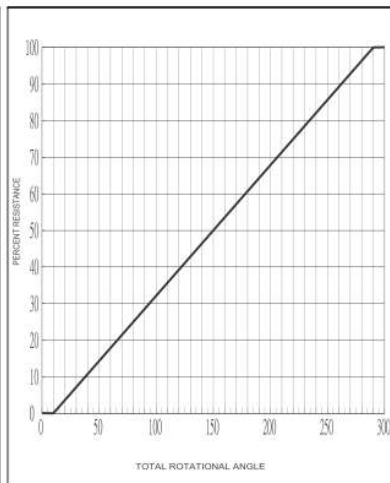
Custom and value-added options available on request. Please contact your sales representative for additional information.

## Electrical and Mechanical Specifications

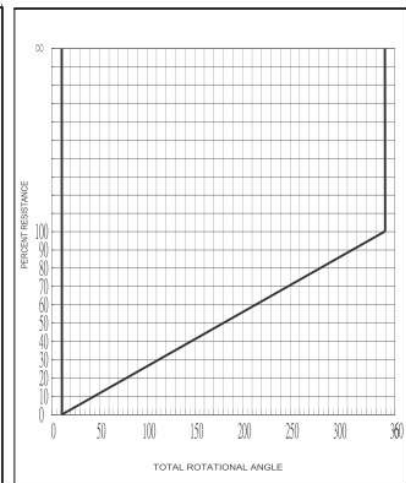
### Resistance Tapers



TOTAL ROTATIONAL ANGLE: 250°



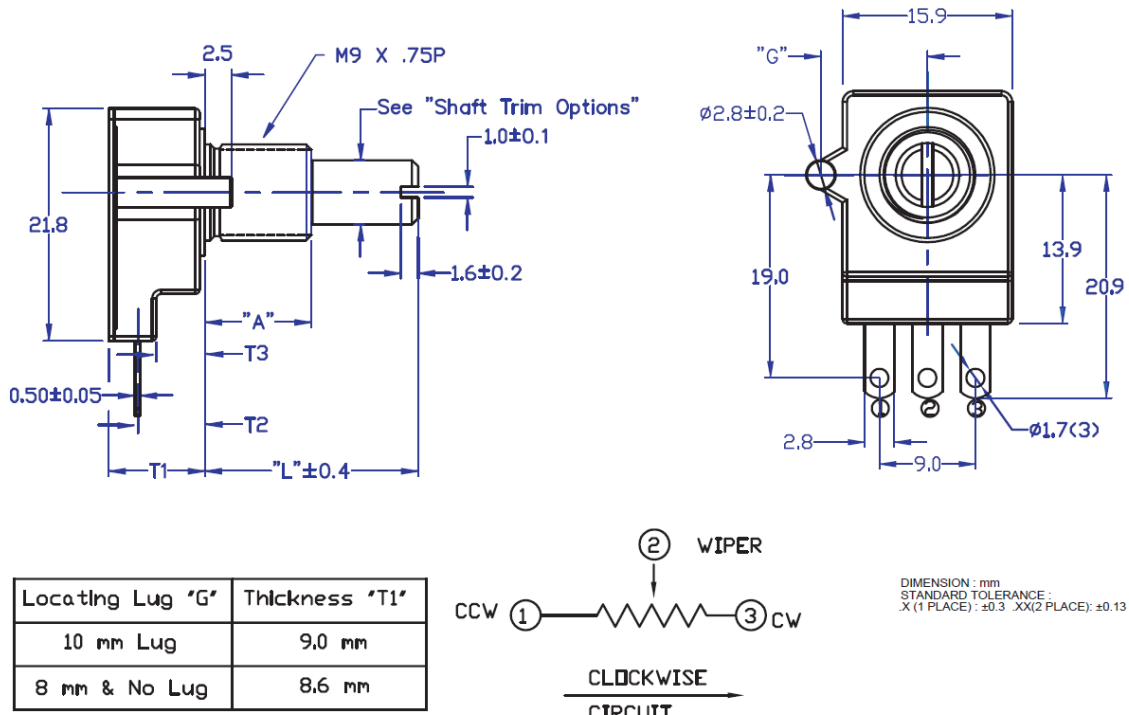
TOTAL ROTATIONAL ANGLE: 300°



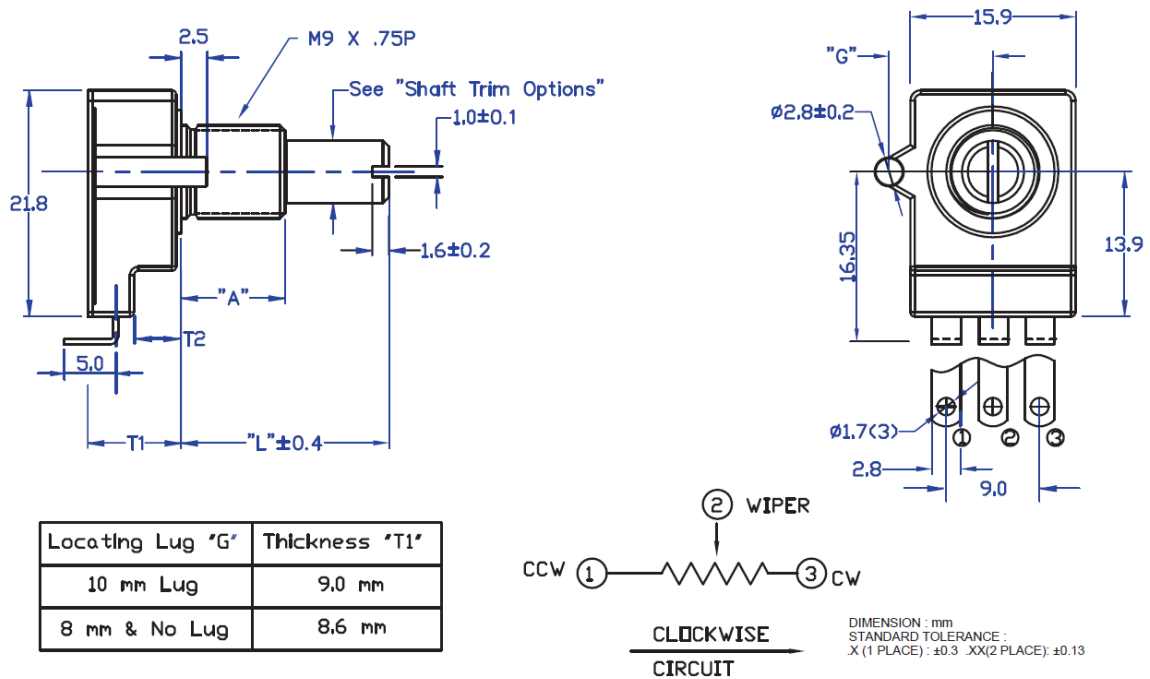
TOTAL ROTATIONAL ANGLE: 360°

### Electrical and Mechanical Specifications

Series 282T Metal Shaft, Bushing Mount, Solder Lug "T" Type Terminals, 8 mm Locating Lug

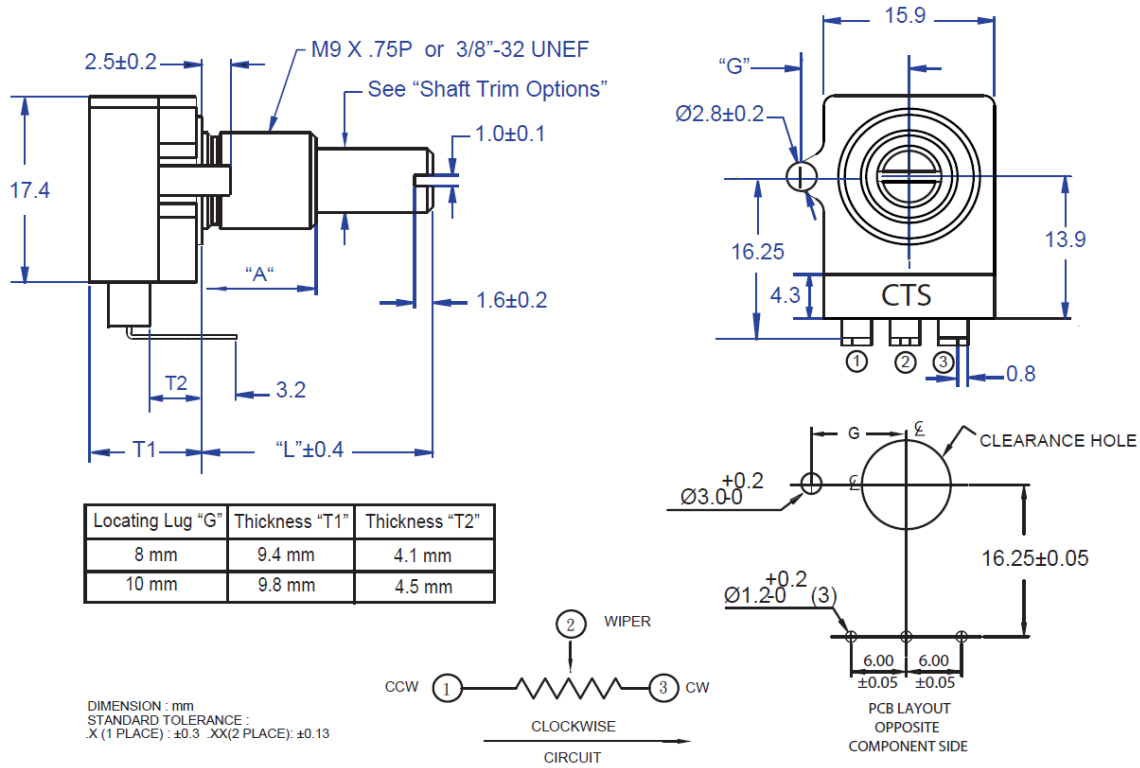


Series 282S Metal Shaft, Bushing Mount, Solder Lug "S" Type Terminal Formed to Rear



## Electrical and Mechanical Specifications

Series 282U Metal Shaft, Bushing Mount, PC "U" Type Terminal Formed to Front



## Shaft Trim and Diameter Options

