

Kingtronics®

RKT-3540

Trimming Potentiometers

FEATURES

At room ambient: +25°C nominal
 and 50% relative Humidity nominal, except as noted.
 Consult manufacturer for complete specification details
 Wire wound element

Electrical Characteristics

| | |
|------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Standard Resistance Range | 100 to 100K ohms |
| Total Resistance Tolerance | ±5% |
| Independent Linearity | ±0.5% |
| Effective Electrical Angle | ≥3600° - 10° |
| Terminal Resistance | ≤0.2%R or 5Ω |
| Absolute Minimum Resistance/ Minimum Voltage | 1 ohm or 0.2% max (Whichever is greater) |
| Noise/ Output Smoothness | ≤3%R or 3Ω |
| Dielectric Withstanding Voltage (MIL-STD-202, Method 301) Sea Level | 101.3Pa 710V, 8.5kPa 470V |
| Power Rating (Voltage Limited By Power Dissipation or 447VAC, Whichever is Less) +70°C, +125°C | 2 watts 0 watt |
| Insulation Resistance | R _i ≥ 1GΩ |
| Resolution | See recommended part# |

Environmental Characteristics

| | |
|---------------------------------------------------------------|------------------------------------------------------------------------------|
| Rated Power | +70°C 2W · +125°C 0W |
| Operating Temperature Range | +1°C to +125°C |
| Storage Temperature Range | -55°C to +125°C |
| Temperature Coefficient Over Storage Temperature Range | ±100ppm/°C |
| Temperature Variation | ΔR ≤ ±2%R · Δ(Uab/Uac) ≤ ±1% |
| Vibration | 10—500HZ, 0.75mm or 98m/s ² , 6h · ΔR ≤ ±1%R, Δ(Uab/Uac) ≤ ±2% |
| Collision | 390m/s ² , 4000 cycles · ΔR ≤ ±1%R |
| Climate Category | ΔR ≤ ±3%R · R ₁ ≥ 100MΩ |
| Electrical Endurance at 70°C | 2W, 1000h, ΔR ≤ ±3%R |
| Mechanical Endurance | 10000 cycles, ΔR ≤ ±3%R |
| Steadydamp-heat | ΔR ≤ ±3%R · R ₁ ≥ 100MΩ |
| Wiper Bounce | 0.1 millisecond maximum |
| Shock | 50G |
| Wiper Bounce | 0.1 millisecond maximum |
| Load Life | 1000 hours, 2 watts |
| Total Resistance Shift | ±2% |
| Rotational Life (No Load) | 10,000 cycles · speed 5-10 cycles/min Starting Torque ≤ 50mN·m |
| Total Resistance Shift | ±5% maximum |
| Moisture Resistance (MIL-STD-202, Method 103, Condition B) | ±2% maximum |
| Total Resistance Shift | |
| IP Rating | IP 40 |

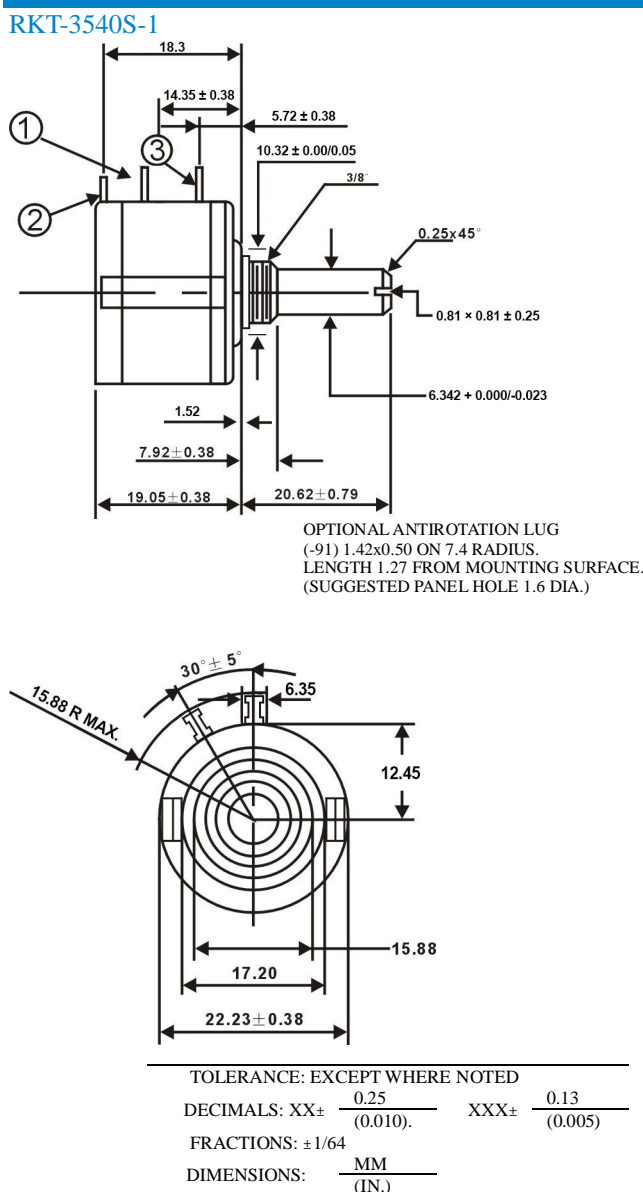
Physical Characteristics

| | |
|-------------------------|-------------|
| Total Mechanical Travel | 3600° ± 10° |
| Starting Torque | ≤ 36mN·m |
| Clutch Torque | ≥ 300mN·m |

PICTURE



Common Dimensions



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Mechanical Characteristics

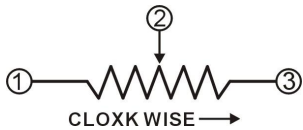
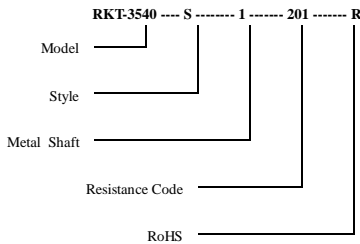
| | |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Stop Strength | 53 N-cm (75 oz-in) minimum |
| Mechanical Angle | 3600° ± 10° |
| Torque (Starting & Running) | 0.35 N-cm (0.5 oz-in) max |
| Mounting | 170-200 N-cm (15-18 lb.-in.) max |
| Backlash | 1.0°C maximum |
| Weight | Approximately 21gm |
| Soldering Condition Manual Soldering | 96.5Sn/ 3.0Ag/ 0.5Cu solid wire or no-clean rosin cored wire; 370°C (700°F) max. for 3 seconds |
| Wash Processes | Not recommended |
| Marking | Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code |
| Ganging (Multiple Section Pots) | 2 cups maximum |
| Hardware | One lockwasher (H-37-2) and one mounting nut (H-38-2) is shipped with each potentiometer |

Resistance Table

RKT-3540S-1

| Resistance (Ohms) | Resistance Code | Resolution (%) |
|-------------------|-----------------|----------------|
| 200 | 201 | 0.042 |
| 500 | 501 | 0.031 |
| 1,000 | 102 | 0.027 |
| 2,000 | 202 | 0.021 |
| 5,000 | 502 | 0.021 |
| 10,000 | 103 | 0.019 |
| 20,000 | 203 | 0.014 |
| 50,000 | 503 | 0.011 |
| 100,000 | 104 | 0.008 |

How to Order



BOLDFACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION

FOR SERVO MOUNT VERSION AND OTHER OPTIONS CONSULT FACTORY.

FOR OTHER OPTIONS CONSULT FACTORY. ROHS IDENTIFIER:

L = COMPLIANT BLANK = NON-COMPLIANT

Note: Specifications are subject to change without notice.

Kingtronics® International Company

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