## Commercial 12mm Diameter Composition Variable Resistors

### Features
- Miniature 12mm size
- Low cost
- Snap-in bracket for PC board mounting
- Detent available
- Insulated shaft available
- RoHS compliant

### Electrical and Mechanical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Standard</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance Range</td>
<td>500 ohms through 1 megohms.</td>
<td>For non-standard resistance values, please contact CTS.</td>
</tr>
<tr>
<td>Resistance Tolerance</td>
<td>±20%</td>
<td>Tighter tolerances available in most resistance values.</td>
</tr>
<tr>
<td>Power Rating, Watts</td>
<td>0.15 watts @ 50°C derated to no load @ 85°C for linear curve.</td>
<td>0.1 watts @ 50°C derated to no load @ 85°C for regular non-linear curve.</td>
</tr>
<tr>
<td>Voltage Rating</td>
<td>Standard 250 VDC; Special: 350 VDC load not to exceed wattage ratings at given ambient temperature.</td>
<td></td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>100 Megohms min. @ 250 VDC.</td>
<td></td>
</tr>
</tbody>
</table>

### Rotational Angle
- Total Rotation: 300° ± 5°
- Effective Electrical Rotation: 280° (approximate)

### Rotational Torque
- 20 – 216 gcm (0.3–3 in-oz)

### Stop Strength
- 5.76 kg-cm (5 in-lb) min. for no detent pots
- 3 kg-cm (2.6 in-lb) min. for with detent pots

### Mounting Information
- P.C. board mounting
  - Type "X": Control shaft parallel to P.C. board.
  - Type "U": Control shaft vertical to P.C. board.
  - Type "H": Same as "X" type except terminals hooked

### Detent
- Center detent available.
XM 296RE/HM 296RE  Molded Shaft, Control Shaft Parallel to P.C. Board

Ordering Information

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TERMINAL STYLE

X – PC
U – PC FORMED TO REAR
H – HOOK

SHAPES AVAILABLE

(ALL SHAFTS: .236"DIA. (6.0mm) EXCEPT "E" - DIAMETER IS .240" (6.1MM)

LENGTH BEYOND COVER

A – .640" (16.3mm) FLATTED .472"X.177" (12X4.5MM)
B – .840" (21.3MM) FLATTED .472"X.177" (12X4.5MM)
C – 1.031" (26.2MM) FLATTED .472"X.177" (12X4.5MM)
D – .540" (13.7MM) KNURLED .287"X.18T (7.3MMX18T)
E – .265" (6.7MM) FLATTED .218"X .204" (5.5X5.2MM)
F – .640" (16.3MM) FLATTED .276"X.177" (7X4.5MM)
G – .717" (18.2MM) FLATTED .276"X.177" (7X4.5MM)
H – 1.035" (26.3MM) FLATTED .276"X.177" (7X4.5MM)

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RESISTANCE CODE EXAMPLES

CODE RESISTANCE
501 500 OHMS
102 1K
252 2.5K
502 5K
103 10K
253 25K
503 50K
104 100K

RESIST TOL

A – ±10%
B – ±20%
C – ±30%

B

N

DETENT

N – NO DETENT
C – CENTER DETENT

H Terminal Type

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DIMENSION: IN

X Terminal Type

UM 296RE  Molded Shaft, Control Shaft Vertical to P.C. Board

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