## Spectrol

# 7/8" (22mm) Conductive Plastic Potentiometer



#### **FEATURES**

- 7/8" Diameter Single Turn
- Compact Size, Advanced Design Technology
- Offers a Cost Effective Solution to your Potentiometer Requirements

ELECTRICAL SPECIFICATIONS			
PARAMETER			
Resistance	Standard range,	Standard range, $1K\Omega$ to $50K\Omega$	
Tolerance	STANDARD ± 20%	SPECIAL TO ± 10%	
Linearity (Independent)	STANDARD ± 2.0%	SPECIAL TO ± 0.25%	
Output Smoothness	0.1% maximum		
TCR	± 600ppm/°C maximum		
Power Rating	1.0 watt at 70°C Derate to 0 watt at 125°C		
Electrical Travel	340° ± 3°		
End Voltage	0.5% maximum		
Dielectric Withstanding Voltage	1,000V <sub>RMS</sub> , 50Hz		
Insulation Resistance	1000MΩ, 500VDC		

MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	$360^{\circ}$ continuous (optional mechanical stops $340^{\circ}\pm3^{\circ}$ )	
Bearing Type Bushing	Sleeve Bearing	
Operating Torque Maximum	Starting and running 3.68mNm (0.5 oz - in)	
Shaft Tolerance Maximum		
Runout	0.13mm	
End Play	0.25mm	
Radial Play	0.13mm	
Weight	17.5gms (0.62 oz)	

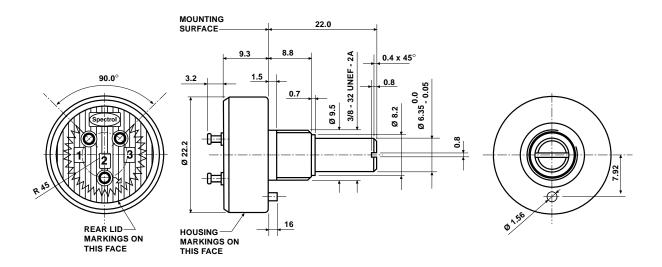
ORDERING INFORMATION					
357	0	0	0 P 22	X	xx
MODEL	FEATURES	RT & INDEPENDENT LINEARITY	SHAFT TYPE		D VALUES Ω
	<ul> <li>Non turn pin &amp; continuous rotation</li> <li>No non turn pin &amp; continuous rotation</li> <li>Non turn pin, with stops on rotation</li> <li>No non turn pin with stop on rotation</li> </ul>	0 = 20% Rt Tol., 2% 1 = 20% Rt Tol,. 1% 2 = 10% Rt Tol., 2% 3 = 10% Rt Tol., 1%	Shaft diameter - <b>0</b> = 6.0 mm or <b>1</b> = 6.35 (1/4") Shaft type - P = plain S = slotted FMF (from Mounting face) Range from 12mm to 75mm in 1mm increments	RES CODE 102 202 502 103 203 503	VALUE 1K 2K 5K 10K 20K 50K
Example: 357	7 - 0 - 0 - 0P22 - XXX				

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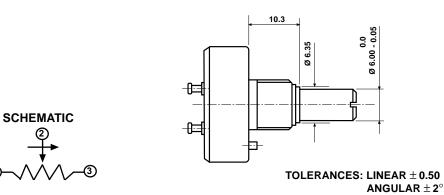
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#### **DIMENSIONS** in millimeters

#### Ø 6.35mm SHAFT VERSION



### Ø 6.0mm SHAFT VARIATION



ENVIRONMENTAL SPECIFICATIONS		
Moisture Resistant	Yes	
Vibration	15g, 10 to 2,000Hz	
Shock	50g	
Load Life	1000 hours	
Temperature Range	- 55°C to + 125 °C	
Rotational Life (Mechanical)	10,000,000 Shaft Revolutions	
Rotational Life (Electrical)	5,000,000 Shaft Revolutions	
Materials: Housing: Bushing: Rear Lid: Shaft: Terminals:	Plastic, glass filled (black) Brass, nickel plated Alumina Stainless steel Turret type, solder plated	
Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated	

MARKING		
Unit Identification	Manufacturer's name and model number, resistance value and tolerance, linearity specification date code and terminal identification	

RESISTANCE VALUES	
Ohms	1K, 2K, 5K, 10K, 20K, 50K