

# Type 17P Series

# **Key Features**

- Polymer thick film element
- Switch versions available
- Dual gang version available
- High reliability
- Small versatile size
- All plastic body
- Plastic spindle
- Flame retardant

#### **Applications**

- Audio
- Industrial controls
- Lighting
- Appliances



Specify the type 17P for applications where high insulation resistance and voltage proof are key requirements. The materials used in the all plastic body and spindle construction are UL approved making it a suitable component for domestic appliances and control systems where safety is of prime importance. This popular low cost potentiometer is suitable for industrial and professional applications. A range of approved switches can be added to the rear of the potentiometer, to produce rotary or push-push action mains switches.

# **Characteristics - Electrical**

Resistance Range:	1K to 1M (linear), 4K7 to 470K (non linear)	
Resistance Value:	1, 2.2 and 4.7 in each decade	
Resistance Tolerance:	± 20% (10% by selection)	
Rated Dissipation at 20°C:	0.25W (linear), 0.125W (non linear)	
Limiting Element Voltage:	350V DC or AC (rms)	
Electrical Rotation:	267° without switch, 232° with switch	
Terminal Resistance:	5Ω, maximum	
Noise (ENR):	2% maximum (linear), 3% maximum (non linear)	
Insulation Resistance:	4GΩ, minimum	
Voltage Proof:	1kV AC peak	

#### **Characteristics - Environmental**

Limits of Resistance Change:	15% (after 1000hrs. endurance)		
Temperature Characteristics of Resistance:	5% (20°C to 70°C)		
Bump Severity:	390m/s <sup>2</sup> , 4000 bumps		
Vibration Severity:	10 - 500Hz, 0.75 mm or 98M/s <sup>2</sup>		
Climatic Category:	25/70/04		
Mechanical Endurance:	20000 operations (minimum)		
Characteristics - Mechanical			

Operating Torque:	15mNm maximum	
Mechanical Rotation:	300° nominal	
End Stop Torque:	350mNm maximum	

#### **Characteristics - Switch**

	B & D	A & E	Р
Switch Type:	1A	4A	10A
Current/Voltage Rating:	1.0A - 24V DC	10A - 12V DC	10A - 250V AC
	0.3A - 250V AC	4A - 250V AC	
On/Off Torque:	40mNm maximum	40mNm maximum	Life - 25,000 cycles minimum
Initial Contact Resistance:	20mΩ	20mΩ	Proof Voltage - 3kV minimum
Contact Gap:	3mm	3mm	

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Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.



# **Type 17P Series**





17 21 12.5 1.1 X 0.45 10

**PCB Layout** 







# **Dual Potentiometer**

**Single Switched Potentiometer** 

# **Rotary Switch PCB Layout**



# **Push-Push Switch PCB Layout**





**Dual Potentiometer PCB Layout** 





10.0 ECDIA 1.3 TYPICAL

L\* - Standard shaft length 35mm All dimensions given from component side





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