

- 轴的尺寸和轴端可按用户要求供货  
Bespoke shaft dimension and shape available upon request

## POL20 型精密单圈导电塑料电位器 POL20 Precision single turn conductive plastic potentiometer

角位移传感器

### ■ 适用标准 Applicable specifications

- GB/T15298-94 电子设备用电位器 第一部分：总规范

### ■ 电特性 Electrical characteristics

- 标称阻值范围 Range of nominal resistance ( $\Omega$ ): 500~20K
- 阻值允许偏差 Tolerance:  $\pm 10\%$
- 终端电阻 Terminal resistance:  $\leq 2\%R$  或  $2\Omega$ , Whichever greater  
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- 独立线性度 Linearity:  $\pm 1\%$   
(可提供  $\pm 0.5\%$ ,  $\pm 0.5\%$  available)
- 耐电压 Dielectric withstand voltage:  $450 V_{AC}$   
(正常大气压 Atmospheric pressure)
- 极限电压 Limiting Voltage(V): 300
- 电气角度 Electrical angle:  $270^\circ \pm 5^\circ$
- 机械角度 Mechanical angle:  $275^\circ \pm 5^\circ$

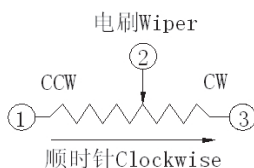
### ■ 环境特性 Environmental characteristics

- 额定功率 Rated Power:  $0.5W @ 70^\circ C, 0W @ 125^\circ C$
- 温度范围 Temperature range ( $^\circ C$ ):  $-55 \sim +125$
- 电阻温度系数 TCR:  $\leq \pm 400 \times 10^{-6} / ^\circ C$
- 稳态湿热 Damp heat, steady state: GB/T15298-94, 4.39 item  
 $\Delta R \leq \pm (2\%R \pm 0.1\Omega)$ ,  $R_i \geq 100M\Omega$
- 振动 Vibration: GB/T15298-94, 4.35 item  
 $\Delta R \leq \pm (0.5\%R \pm 0.05\Omega)$ ,  $\Delta (U_{ab}/U_{ac}) \leq \pm 1\%$
- 冲击 Shock: GB/T15298-94, 4.35 item  
 $\Delta R \leq \pm (0.5\%R \pm 0.05\Omega)$
- 电气耐久性 Electrical Endurance:  $70^\circ C, 1000h$   
 $\Delta R \leq \pm (2\%R \pm 0.1\Omega)$
- 机械耐久性 Rotational Life: 50000 cycles;  
 $\Delta R \leq \pm (2\%R \pm 0.1\Omega)$

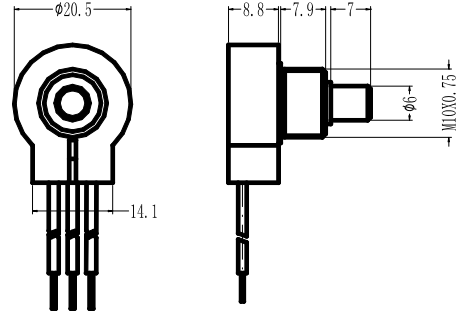
### ■ 物理特性 Physical characteristics

- 启动力矩 Starting torque:  $\leq 3mN.m$
- 终端止档力矩 Stop Torque:  $\leq 300mN.m$
- 重量 Weight:  $\leq 25g$
- 标志: 商标、型号、阻值、日期代码  
Marking: Code symbol, type, resistance, date code
- 标准包装 Standard package: 20 只/捆 20pcs/bundle
- 安装形式 Mounting  
轴套安装(Bushing Mounted)  
轴套螺纹(screw thread of the bushing)为 M10 $\times$ 0.75

### ■ 电路图 Circuit diagram

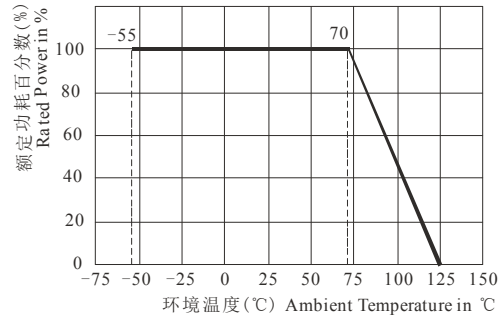


### ■ 外形尺寸图 Dimensions



公差: 除注明外均为 $\pm 0.5$   
Tolerance is  $\pm 0.5$ , unless otherwise specified

### ■ 降功耗曲线 Derating



### ■ 标称阻值表

#### Nominal resistance table

阻值 Resistance ( $\Omega$ )
500
1K
2K
4K7
5K
10K
20K

### ■ 订货指南 Ordering Information

P-O-L-20-1K

精密 Precision - 单圈 Single turn - 导电塑料 conductive plastics - 型号 Type - 标称阻值 Resistance