PD2210 / PD2205 / PD2203 Multi-turn Precision Wirewound Potentiometers

Electrical Characteristics

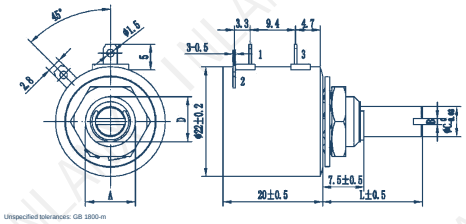
Parameter	Specification
Nominal resistance	PD2210: 50 Ω to 100 kΩ; PD2205: 25 Ω to 50 kΩ; PD2203: 15 Ω to 30 kΩ
Resistance tolerance	±5%; ±10%
Insulation resistance	≥1 GΩ
Peak noise	≤100 Ω
Linearity	±0.25%
Limiting voltage	300 V
Electrical travel	PD2210: 3600°±4°; PD2205: 1800°±4°; PD2203: 1080°±4°
Wiper current limit	50 mA



Physical Characteristics

Parameter	Specification
Starting torque	3 to 10 mN·m
Marking	Trademark, model, nominal resistance, circuit diagram, date code
End-stop torque	≤300 mN·m
Mass	≤25 g
Mounting	Bushing mounting (see outline); not suitable for servo cable drive
Nut tightening torque	170 to 200 cN·m
Panel thickness	2.5 to 3.7 mm

Outline Dimensions • mm

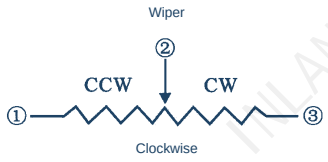


Bushing Styles • mm

Style	A	B	C	L	D
MB	M10×0.75	1.2	6	20	9
M8	M8×0.75	0.8	4	20	—
UK	3/8in-32	1.2	6.35	20	9
FK	3/8in-32	1.2	6.35	20	—

MB, UK: bushing with flat; M8, FK: bushing.

Circuit Diagram



Environmental Characteristics

Parameter	Specification
Rated power	2 W @ 70℃; 0 W @ 125℃
Temperature range	-55℃ to +125℃
Temperature coefficient of resistance	≤±100 × 10^-6/K

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Nominal Resistance and Resolution

Model	Resistance Ω	Resolution %	Resistance Ω	Resolution %	Resistance Ω	Resolution %
PD2210	50	0.076	1k	0.036	20k	0.014
PD2210	100	0.08	2k	0.029	50k	0.008
PD2210	200	0.061	5k	0.02	100k	0.007
PD2210	500	0.043	10k	0.018		
PD2205	25	0.152	500	0.072	10k	0.028
PD2205	50	0.16	1k	0.058	25k	0.016
PD2205	100	0.122	2.5k	0.04	50k	0.014
PD2205	250	0.086	5k	0.036		
PD2203	15	0.228	300	0.108	6k	0.042
PD2203	30	0.24	600	0.087	15k	0.024
PD2203	60	0.183	1.5k	0.06	30k	0.021
PD2203	150	0.129	3k	0.054		

Main Inspection Items

Item	Test Conditions and Requirements
Shock	GB/T 15298-1994, 4.37; 6 ms, 3 shocks in each of 6 directions; no visible damage; ΔR≤±(0.5%R+0.05 Ω).
Vibration	10 Hz to 1000 Hz; 10 g or 0.75 mm amplitude, 6 h; ΔR≤±(0.5%R+0.05 Ω); Δ(Uab/Uac)≤±1%.
Climatic sequence	GB/T 15298-1994, 4.38; no visible damage; insulation resistance ≥100 MΩ; ΔR≤±(2%R+0.1 Ω).
Electrical endurance	2 W, 70℃, 1000 h; ΔR≤±(2%R+0.1 Ω).
Mechanical endurance	5000 revolutions; ΔR≤±(2%R+0.1 Ω).
Damp heat, steady state	GB/T 15298-1994, 4.39; ΔR≤±(2%R+0.1 Ω); insulation resistance ≥100 MΩ.

Applicable Standards

Quality mark	Detail specification	Generic specification
PD2210: inverted triangle G mark	Q/RU 805-2005; QZJ 84061	GB/T 15298-1994
PD2210: J	Q/RU 805-2005	GB/T 15298-1994
PD2205, PD2203: J	Q/RU 805-2005	GB/T 15298-1994

Ordering Information

PD2210 - 10K - J

Source ordering example. Models: PD2210, PD2205, PD2203. Nominal resistance: see table. Tolerance J: ±5%. See page 1 for bushing styles.