Cooka (Zhongshan) Technology Co., Ltd.

- 22mm diameter
- Ceramic base element
- 5,000,000 cycles life
- ±1% precision linearity
- Lower temperature coefficient
- Water resistant IP65
- Continuous rotation available



CRS22 – 22mm Precision Rotary Sensor Specification

Electrical

Standard Resistance Range . . . 200Ω, 1kΩ, 2KΩ, 5KΩ, 10kΩ

Resistance Tolerance . . . . . 10% standard

End Resistance . . . . . 20Ω max.

Resistance Taper . . . . . linear

Linearity . . . . . ±1.0%

Noise (C.R.V.) . . . . . .100 mV

Temperature Coefficient . . . . . 500ppm/℃

Power Rating . . . . . 2 watt at 40℃, 0 watt at 85℃

Maximum Input Voltage . . . . . 50VDC Max.

Insulation Resistance . . . . . 100MΩ minimum at 1,000VDC

Dielectric Strength . . . . . 1,000VAC, 1 minute

Mechanical

Mechanical Angle . . . . . 300°, 312°,360°

Shaft Torque . . . . . .60 gf•cm Max.

Stop Strength . . . . . .9 kgf•cm Min.

Shaft Strength (push) . . . . . .12.75 kgf Min.

Shaft Strength (tensile) . . . . . .12.75 kgf Min.

Mounting Nut Torque . . . . . .15 kgf•cm Min.

IP Rating IP65

Soldering Condition

Manual Soldering . 350 °C ± 10 °C for 3.5 ± 0.5 sec.

Environmental

Working Temperature . . . . . -40℃ to 105℃

Storage Temperature . . . . . -45℃ to 125℃

Durability Test

Temperature Characteristics Test . . . . . 125℃, 5 hours

ΔT/R ≤±10%

Temperature Cycle Test . . . . . -45℃, 125℃,30 minutes each, 5 cycles

ΔT/R ≤±10%

Load Life Test. . . . . 40℃, 2watt, 1,000 hours

ΔT/R ≤±10%

Moisture and Load Life Test . . 40℃, 90-95%RH,0.25 watt, 500 hours

ΔT/R≤±10%

Vibration Test . . . . . 10-55Hz, 1.5mm amplitude, 3 directions

ΔT/R ≤±5%

Soldering Heat Resistance Test . . . . . 350℃±5℃, 3 seconds

ΔT/R≤±2%

Rotational Life Test. . . . . 2,000,000 cycles without load

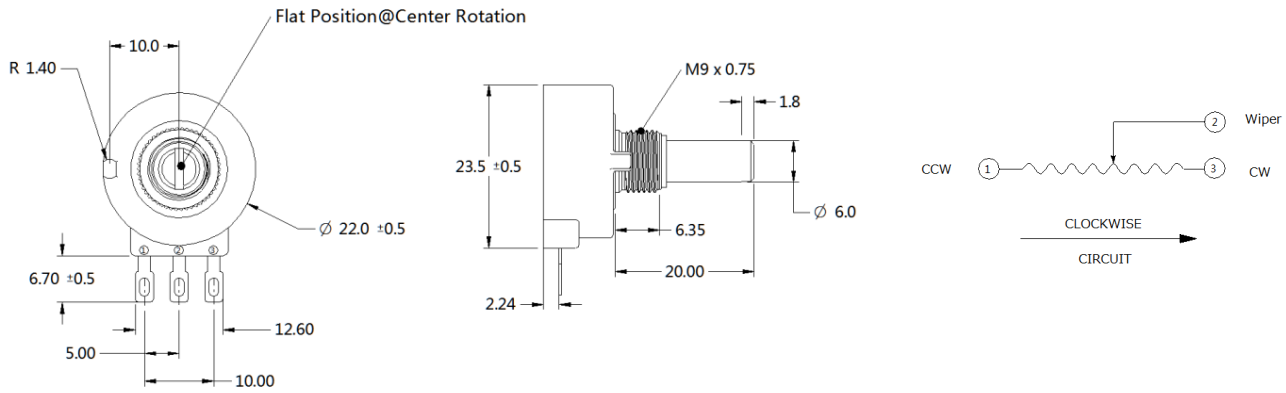
Special: 5,000,000 cycles

ΔT/R≤±10%

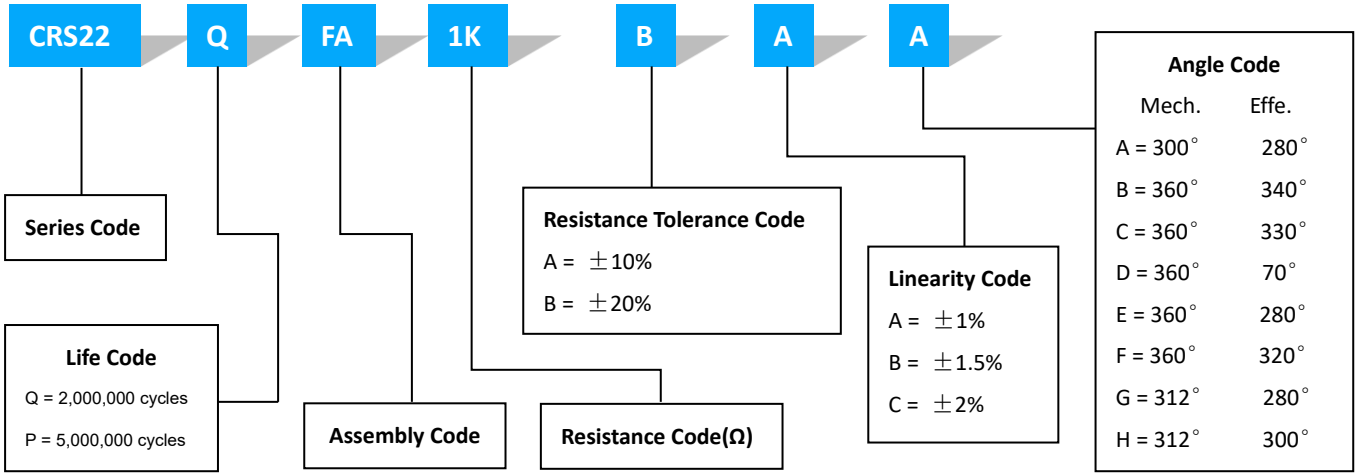
ΔT/R = Total Resistance Change

CRS22 Series Product Dimension

Unit: mm



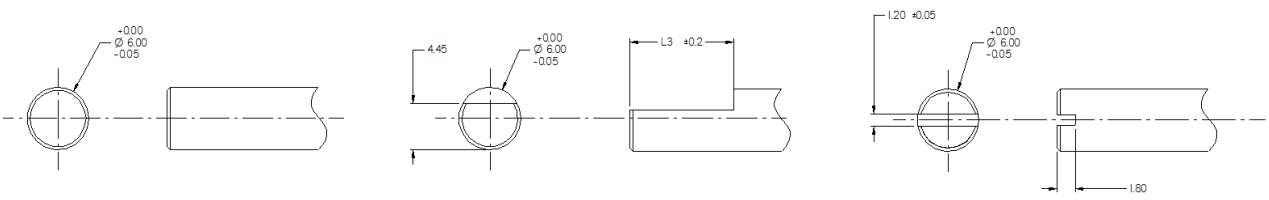
CRS22 Series Part Numbering System



Assembly Code

Assembly Code	FA	FB	FC	FD	SA	SB	SC	SD	RA	RB	RC	RD
Bushing Length	6.35mm	6.35mm	10mm	10mm	6.35mm	6.35mm	10mm	10mm	6.35mm	6.35mm	10mm	10mm
Shaft Type	Flat	Flat	Flat	Flat	Slot	Slot	Slot	Slot	Round	Round	Round	Round
FMS	20mm	25mm	20mm	25mm	20mm	25mm	20mm	25mm	20mm	25mm	20mm	25mm

Shaft Specification



Round Flatted Slot

Note : For Flatted shaft, L3 should be defined as below:

FMS = 20, L3 = 8.7mm ; FMS = 25, L3 =13mm ;