

# RP5320

## Rotary Potentiometer

The high performance RP5320 sensor contains design features that make it ideally suited for applications where system reliability is a design consideration. They are used extensively in motorsport applications for throttle actuation and gear selection control systems. The sensor provides precision measurement, reliability and quality. The multi-fingered precious metal electrical contacts, combined with Active Sensors unique hard wearing 'thick track' technology provide unparalleled levels of reliability coupled with long operational life. The RP5320 has precision set stainless steel ball race 'shaft bearings' that provide excellent vibration and shock performance throughout the life of the sensor. The housing is manufactured from aluminium alloy and the operating shaft is stainless steel. The sensor is environmentally sealed and is fitted with Raychem fire and chemical resistant, high temperature FDR-type55-24 signal cabling. The housing is designed for the easy fitting of an optional shrink down boot for additional sensor protection.

Other applications include precision actuator feedback and manufacturing process monitoring and control.

### Other models in this range

RP5310 - Triangular flange / sprung shaft

RP5330 - Triangular flange / spade shaft

RP5210 - Aluminium housing / sprung shaft

RP5220 - Aluminium housing / round shaft

RP5230 - Aluminium housing / spade shaft

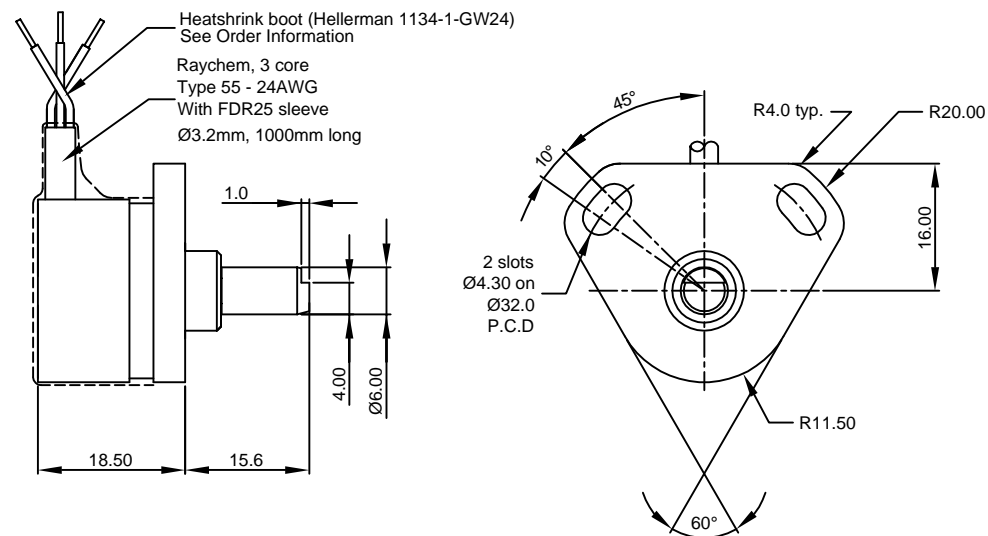
RP5110 - Sprung shaft option

RP5120 - Round shaft option

RP5130 - Spade shaft option

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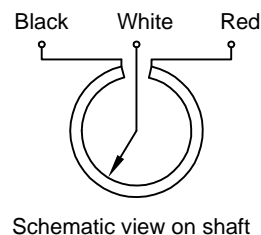
### Electrical & Mechanical Information

|                                    |      |   |      |        |
|------------------------------------|------|---|------|--------|
| Electrical angle                   | 350° | 130°  | 100° |        |
| Resistance (Typical)               | 3    | 1   | 1    | K ohms |
| Non-linearity                      |      | <±0.50  |      | %      |
| Applied voltage                    | <42  | <20   | <15  | Volts  |
| Maximum wiper current              |      | 1   |      | mA     |
| Mechanical travel                  |      | 360° continuous   |      |        |
| Insulation resistance (at 500V dc) |      | >100  |      | M ohms |
| Operating temp. range              |      | -55° to +125°   |      | °C     |
| Sealing                            |      | IP66  |      |        |
| Weight (approx.)                   |      | 38  |      | grams  |
| Case material                      |      | Aluminium 6262  |      |        |
| Shaft material                     |      | Stainless Steel 303 series                              |      |        |
| Shaft bearing                      |      | AISI 440c Martensitic Stainless Steel (NMB DDRIF-418ZZ) |      |        |

Note 1: When shaft marking is facing cable exit, instrument is mid-travel. Note 2: Incorrect wiring may cause internal damage.

Circuit recommendation: Due to the presence of a high contact resistance, these potentiometers should be used as voltage dividers only. Operation with wiper circuits of low impedance will degrade the output signal.

### Electrical Connections (See Note 2)



### Ordering Information

**RP532Y-XXX**

**0 = No heatshrink boot  
1 = Heatshrink boot fitted**

**Electrical angle in degrees**