

## Multi-Turn Potentiometer from 5 Turns to 200 Turns (More on Request)


**FEATURES**

- Conductive plastic potentiometer technology
- Big flexibility to adjust the number of turns to the request
- Anodized light alloy housing
- Stainless steel shaft
- Flange mounting
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS  
COMPLIANT**
**QUICK REFERENCE DATA**

|                  |                          |
|------------------|--------------------------|
| Sensor type      | ROTATIONAL - multi-turns |
| Output type      | Output by wires          |
| Market appliance | Avionics, industrial     |
| Dimensions       | Diameter 1/2" (12.7 mm)  |

**ELECTRICAL SPECIFICATIONS**

| PARAMETER                  |  |
|----------------------------|--|
| Useful electrical travel   | 1800° to 72 000° ± 5 %                         |
| Rated resistance           | 2 kΩ ± 20 % to 4.7 kΩ ± 20 % (more on request) |
| Independent linearity      | ± 2 % (less on request)                        |
| Insulation resistance      | > 1 GΩ, 500 V <sub>CC</sub>                    |
| Test voltage               | 500 V <sub>AC</sub> / 50 Hz, 1 min             |
| Rated dissipation at 40 °C | 0.5 W  |
| Resolution                 | Infinite                                       |
| Wiper current              | < 1 mA   |

**MECHANICAL SPECIFICATIONS**

| PARAMETER                     |  |
|-------------------------------|--|
| Mechanical travel             | Useful electrical travel ± 1080° (up to ± 180° on request)                 |
| Starting and operating torque | < 50 cN cm   |
| Backlash                      | < 50° (< 25° on request)   |
| Mounting specification        | Flexible coupling between motor element (customer) and potentiometer shaft |
| Shaft end play                | < 0.25 mm  |
| Shaft radial play             | < 0.25 mm  |

**PERFORMANCE**

| PARAMETER                   |   |
|-----------------------------|---|
| Operating temperature range | -15 °C to +55 °C  |
| Storage temperature range   | -55 °C to +85 °C  |
| Life at 250 tr/min          | 10M rotations (more on request), resistance variation: 5 % max. |
| Maximum rotation speed      | 250 rpm (more on request)                                       |
| Vibration                   | 10 g  |
| Shock                       | 50 g  |

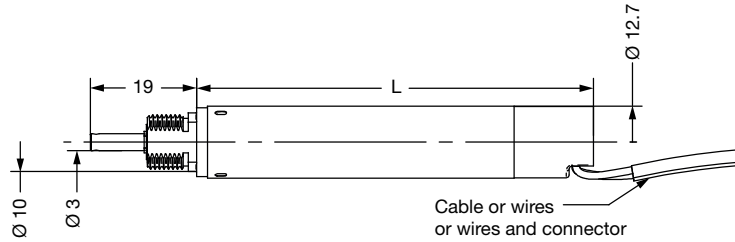
**Note**

- Nothing stated herein shall be construed as a guarantee of quality or durability.



| SAP PART NUMBERING GUIDELINES |                                  |           |           |           |          |           |
|-------------------------------|----------------------------------|-----------|-----------|-----------|----------|-----------|
| MODEL                         | USEFUL ELECTRICAL TRAVEL (TURNS) | TYPE      | VALUE     | LINEARITY | LEADS    | PACKAGING |
| RP12                          | 050<br>100                       | T = turns | 472 = 4K7 | X = 2 %   | W = wire | B = bulk  |

**DIMENSIONS** in millimeters



|                 |    |    |    |    |     |     |     |
|-----------------|----|----|----|----|-----|-----|-----|
| Number of turns | 5  | 10 | 20 | 50 | 100 | 150 | 200 |
| Length          | 59 | 61 | 65 | 77 | 97  | 117 | 137 |

**OPTIONS** (on request)

- Clutching system at the ends of travel
- Bigger number of turns
- Other ohmic value and tolerance on this ohmic value
- Other linearity
- Other shaft and flange designs
- Other temperature ranges



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