

Wirewound Technology, Single- and Multi-Turn Precision Potentiometers



FEATURES

- Large electrical angles
- High power dissipation
- Low temperature coefficient $\approx 20 \text{ ppm}/^\circ\text{C}$
- Can be operated either as a voltage divider or as a rheostat

APPLICATIONS

- Medical equipment (x-ray machines)
- Scissor lifts for garages
- Industrial machines for welding and wire cutting
- Temperature control for cold chambers on cargos

A WORLD OF
SOLUTIONS



Single-Turn

Model	Electrical Travel (°)	High Accuracy (Linearity)	Ohmic Values (Ω)	Resistance Tolerance at 20 °C	Starting Torque (N.cm)	Operating Life (Cycles)	Temperature Range (°C)	Cylindrical External Diameter (mm)	Options
100 	352 ± 2 Bushing and servo	± 0.5 %, 100 Ω < Rt < 35 Ω ± 1.0 %, 5 Ω < Rt < 100 Ω	5 to 35 k	± 3 %, 50 Ω < Rt ± 5 %, 5 Ω < Rt < 50 Ω	< 0.45 (servo) < 0.75 (bushing) < 0.25 (each add.)	1 million	-55 °C to +105 °C	33.3	Up to 6 sections
122 	350 ± 2 Bushing and servo	± 0.5 %, 200 Ω < Rt < 30 Ω ± 1.0 %, 5 Ω < Rt < 200 Ω	5 to 30 k	± 3 %, 20 Ω < Rt < 30 Ω ± 5 %, 5 Ω < Rt < 20 Ω	< 0.2 (servo) < 0.25 (bushing) < 0.15 (each add.)	1 million	-55 °C to +125 °C	27	Up to 6 sections
132 	352 ± 2 Bushing mount	± 0.5 %, 200 Ω < Rt < 35 Ω ± 1.0 %, 5 Ω < Rt < 200 Ω	5 to 35 k	± 3 %, 50 Ω < Rt < 35 Ω ± 5 %, 5 Ω < Rt < 50 Ω	< 0.75	500 000	-55 °C to +125 °C	33.3	Stops on request
140 	320 ± 5 Bushing mount	± 1 %	50 to 20 k	± 5 %	< 0.15	500 000	-55 °C to +125 °C	12.7	Sealed on request
142 	350 + 0 - 4 Servo mount	± 1 %	50 to 20 k	± 5 %	< 0.06	500 000	-55 °C to +125 °C	12.7	Sealed on request
152 	340 ± 2 Bushing and servo	± 0.5 %, 500 Ω < Rt < 40 Ω ± 1.0 %, 5 Ω < Rt < 500 Ω	5 to 40 k	± 3 %, 50 Ω < Rt < 40 Ω ± 5 %, 5 Ω < Rt < 50 Ω	< 0.2 (servo) < 0.25 (bushing)	2 million (servo) 1 million (bushing)	-55 °C to +125 °C	22.2	Extra TAPS on request
202 	350 ± 2 Bushing and servo	± 0.25 %, 500 Ω < Rt < 65 Ω ± 0.5 %, 50 Ω < Rt < 500 Ω ± 1 %, 5 Ω < Rt < 50 Ω	5 to 65 k	± 3 %, 50 Ω < Rt < 65 Ω ± 5 %, 5 Ω < Rt < 50 Ω	< 0.50 (servo) < 0.75 (bushing) < 0.30 (each add.)	1 million	-55 °C to +125 °C	44.5	Up to 6 sections
302 	350 ± 2 Bushing and servo	± 0.25 %, 200 Ω < Rt < 85 Ω ± 0.5 %, 50 Ω < Rt < 200 Ω ± 1 %, 5 Ω < Rt < 50 Ω	5 to 85 k	± 3 %, 50 Ω < Rt < 85 Ω ± 5 %, 5 Ω < Rt < 50 Ω	< 0.75 (servo) < 1.25 (bushing) < 0.45 (each add.)	1 million	-55 °C to +125 °C	50.8	Up to 6 sections
702 	350 ± 2 Bushing and servo	± 0.5 %, 500 Ω < Rt < 30 Ω ± 1.0 %, 5 Ω < Rt < 500 Ω	5 to 30 k	± 3 %, 20 Ω < Rt < 30 Ω ± 5 %, 5 Ω < Rt < 20 Ω	< 0.10 (servo) < 0.20 (bushing) < 0.10 (each add.)	1 million	-55 °C to +125 °C	22.2	Up to 6 sections



Multi-Turn

Model	Electrical Travel (°)	High Accuracy (Linearity)	Ohmic Values (Ω)	Resistance Tolerance at 20 °C	Starting Torque (N.cm)	Operating Life (Cycles)	Temperature Range (°C)	Cylindrical External Diameter (mm)	Options
162 	3600 + 15 - 0 (10 turns) Bushing and servo	± 0.30 %	100 to 115 k	± 5 %	< 0.60	500 000	-55 °C to +125 °C	12.7	Improved linearity
164 	3600 + 15 - 0 (10 turns) Bushing and servo	± 0.30 %	100 to 115 k	± 5 %	< 0.30	500 000	-55 °C to +125 °C	12.7	Improved linearity
502 	3600 + 4 - 0 (10 turns) Bushing and servo	± 0.25 %	15 to 150 k	± 3 %, 100 Ω < Rt < 150 Ωk ± 5 %, 15 Ω < Rt < 100 Ω	< 0.30 (servo) < 0.40 (bushing) < 0.25 (each add.)	2 million	-55 °C to +125 °C	22.2	Up to 2 sections
533 	1080 + 0 + 10 (3 turns) Bushing and servo	± 0.25 %	50 to 60 k	± 5 %	< 0.50 (one section) < 0.80 (two sections)	300 000	-55 °C to +125 °C	22.2	Up to 2 sections
534 	3600 + 0 + 10 (10 turns) Bushing and servo	± 0.25 %	100 to 200 k	± 5 %	< 0.35 (one section) < 0.65 (two sections)	1 million	-55 °C to +125 °C	22.2	Up to 2 sections
535 	1800 + 0 + 10 (5 turns) Bushing and servo	± 0.25 %	50 to 100 k	± 5 %	< 0.50 (one section) < 0.80 (two sections)	500 000	-55 °C to +125 °C	22.2	Up to 2 sections
536 	3600 + 0 + 10 (10 turns) Bushing mount	± 0.25 %	100 to 100 k	± 5 %	< 0.40	1 million	-55 °C to +125 °C	22.2	Metric model shaft / bushing
552 	1080 + 4 - 0 (3 turns) Bushing and servo	± 0.25 %	5 to 45 k	± 3 %, 50 Ω < Rt < 45 Ωk ± 5 %, 5 Ω < Rt < 50 Ω	< 0.30 (servo) < 0.40 (bushing) < 0.25 (each add.)	600 000	-65 °C to +125 °C	22.2	Up to 2 sections
802 	3600 + 4 - 0 (10 turns) Bushing and servo	± 0.25 %	20 to 500 k	± 3 %, 200 Ω < Rt < 500 Ωk ± 5 %, 20 Ω < Rt < 200 Ω	< 0.90 (servo) < 1.30 (bushing) < 0.60 (each add.)	2 million	-55 °C to +125 °C	50.8	Up to 3 sections
830 	1080 + 4 - 0 (3 turns) Bushing mount	± 0.25 %	15 to 150 k	± 3 %, 200 Ω < Rt < 150 Ωk ± 5 %, 15 Ω < Rt < 200 Ω	< 1.30 (one section) < 1.90 (two sections)	500 000	-55 °C to +125 °C	46	Up to 2 sections
852 	1080 + 4 - 0 (3 turns) Bushing and servo	± 0.25 %	15 to 150 k	± 3 %, 100 Ω < Rt < 150 Ωk ± 5 %, 15 Ω < Rt < 100 Ω	< 0.90 (servo) < 1.30 (bushing) < 0.6 (each add.)	600 000	-55 °C to +125 °C	46	Up to 3 sections
860 	3600 + 4 - 0 (10 turns) Bushing mount	± 0.25 %	20 to 500 k	± 1 %, 200 Ω < Rt < 500 Ωk ± 3 %, 20 Ω < Rt < 200 Ω	< 1.30 (one section) < 1.90 (two sections)	500 000	-55 °C to +125 °C	46	Up to 2 sections

For technical questions, contact: sferprecisionpot@vishay.com