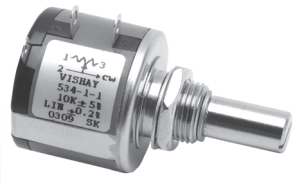
7/8” (22mm) Precision Wirewound Potentiometer



Note: The color of this product is changing to blue, during the internal period you may recieve either black or blue.

ADDITIONAL FEATURES

- Special Resistance Tolerances to 1%
- Rear Shaft Extensions and Support Bearing
- Non Turn Lug
- Dual Gang Configuration and Concentric Shafts
- High Torque and Center Tap
- Special Markings and Front Shaft Extensions
- Servo Unit available and Slipping Clutch

ELECTRICAL SPECIFICATIONS

PARAMETER	MODEL 533	MODEL 534	MODEL 535
Resistance Range Standard Values	50Ω to 20KΩ	100Ω to 100KΩ	50Ω to 50KΩ
Capability Range	5Ω to 60KΩ	10Ω to 200KΩ	5Ω to 100KΩ
Standard Tol	± 5%	± 5%	± 5%
Linearity (Independent)	± 0.25%	0.20%	± 0.25%
Noise	100Ω ENR	100Ω ENR	100Ω ENR
Rotation (Electrical & Mechanical)	1080° + 10%	3600° + 10%	1800° ± 10°
Power Rating (@ 70°C)	1.0 watts	2.0 watts	1.5 watts
Insulation Resistance	1000MΩ minimum 500VDC		
Dielectric Strength	$1000V_{RMS}$ minimum 60Hz		
Absolute Minimum Resistance	Not to exceed linearity x total resistance or 1Ω, whichever is greater		
Tempco	20ppm/°C (standard values, wire only)		
End Voltage	0.25% of total applied voltage, maximum		
Phasing	CCW end points - section 2 phased to section 1 within ± 2°		
Taps	Center tap only		

MARKING

Unit Identification	Manufacturer’s name and model number, resistance value and tolerance, linearity specification date code and terminal identification

RESISTANCE VALUES

Ohms	
533:	50R, 100R, 200R, 500R, 1K, 2K, 5K, 10K, 20K
534:	100R, 200R, 500R, 1K, 2K, 5K, 10K, 20K, 50K, 100K
535:	50R, 100R, 200R, 500R, 1K, 2K, 5K, 10K, 20K, 50K

ORDERING INFORMATION

The Models 533 (3 turn), 534 (10 turn) and 535 (5 turn) can be ordered by stating

534	**1**	**2**	**XXX**
MODEL	MOUNTING	NUMBER OF SECTIONS	RESISTANCE EIA CODE
	1. Bushing **2**. Servo	**1.** Single section **2.** Dual section	

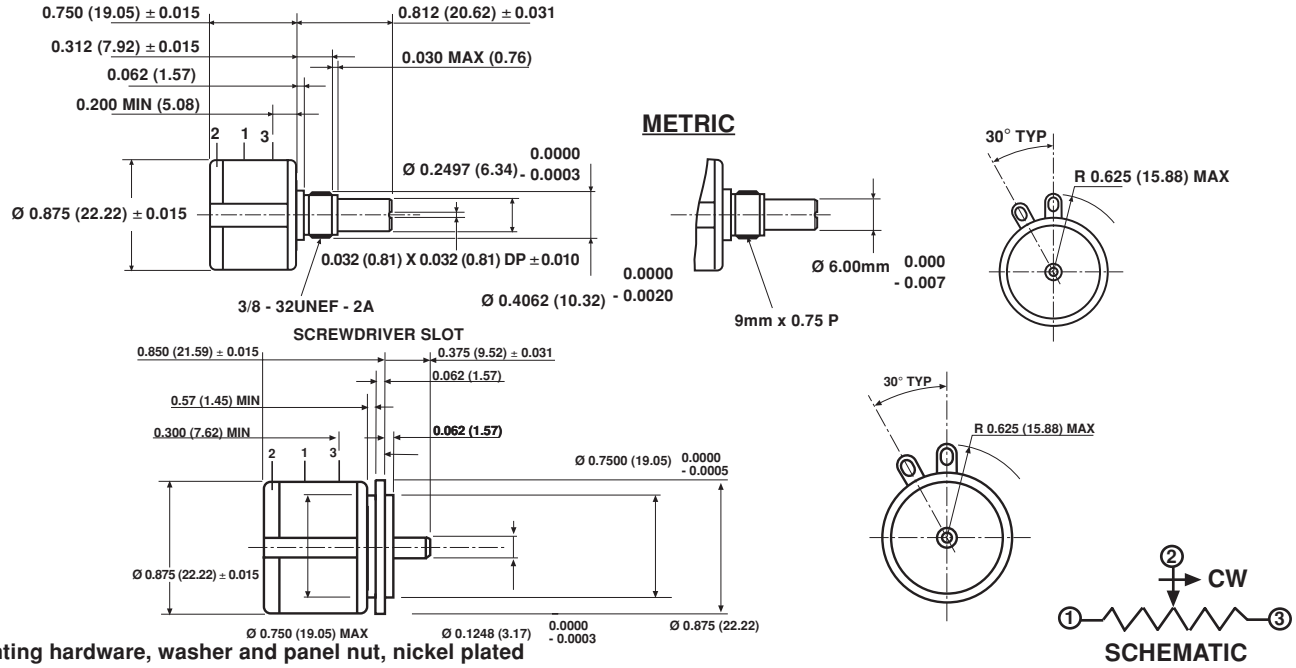
Model 533, 534, 535

Vishay Spectrol

7/8” (22mm) Precision
Wirewound Potentiometer

SINGLE SECTION

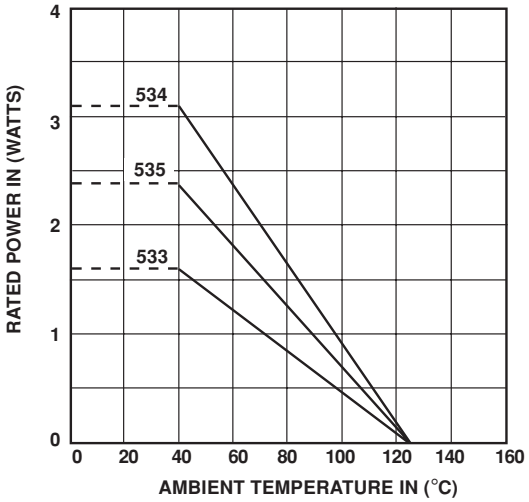
DIMENSIONS in millimeters



Mounting hardware, washer and panel nut, nickel plated

MECHANICAL SPECIFICATIONS		
PARAMETER		
Bearing Type	Bushing: Sleeve bearing Servo: Ball	
Torque (maximums): starting Section 1 Section 2	**534** 0.5 oz - in (36gm - cms) 0.9 oz - in (65gm - cms)	**533/535** 0.7 oz - in (50gm - cms) 1.1 oz - in (79gm - cms)
Torque (maximums): running Section 1 Section 2	**534** 0.4 oz - in (28.80gm - cms) 0.7 oz - in (50.40gm - cms)	**533/535** 0.6 oz - in (43.20gm - cms) 0.9 oz - in (64.8gm - cms)
Weight (maximums) Section 1 Section 2	0.75 oz (21.26gm) 1.25 oz (35.44gm)	
Stop Strength	75 oz - in (static) (5.4Kgm - cm)	
Ganging	2 sections maximum	

POWER RATING CHART



ENVIRONMENTAL SPECIFICATIONS	
Vibration	15g thru 2000Hz
Shock	50g
Rotational Life (Shaft Revolution) 533 534 534 (Servo) 535	 300,000 1,000,000 > 1,000,000 500,000
Load Life	900 Hours
Temperature Range	- 55°C to + 125°C

For technical questions, contact sfer@vishay.com

RESISTANCE ELEMENT DATA

RESISTANCE VALUE (Ω)			RESOLUTION %			OHMS PER TURN			MAX CURRENT AT 70°C AMBIENT (mA)			MAX VOLTAGE ACROSS COIL (V)		
533	**534**	**535**	**533**	**534**	**535**	**533**	**534**	**535**	**533**	**534**	**535**	**533**	**534**	**535**
50	–	50	0.149	–	0.120	0.0746	–	0.0603	141.0	–	173.0	7.07	–	8.66
100	100	100	0.111	0.060	0.075	0.1114	0.0603	0.0746	100.0	141.0	122.0	10.0	14.1	12.2
200	200	200	0.097	0.037	0.061	0.1954	0.0746	0.1220	70.7	100.0	86.6	14.1	20.0	17.3
500	500	500	0.069	0.031	0.049	0.3424	0.1520	0.2459	44.7	63.2	54.7	22.4	31.6	27.4
1K	1K	1K	0.063	0.025	0.041	0.6331	0.2459	0.4113	31.6	44.7	38.7	31.6	44.7	38.7
2K	2K	2K	0.041	0.021	0.031	0.8206	0.4113	0.6331	22.4	31.6	27.4	44.7	63.2	54.8
5K	5K	5K	0.044	0.016	0.034	2.2330	0.8206	1.7230	14.1	20.0	17.3	70.7	100.0	86.6
10K	10K	10K	0.034	0.017	0.030	3.4510	1.7230	3.0160	10.0	14.1	12.2	100.0	141.0	122.0
20K	20K	20K	0.031	0.015	0.020	6.1790	3.0160	3.9910	7.07	10.0	8.66	141.0	200.0	173.0
–	50K	50K	–	0.009	0.015	–	4.6690	7.4560	–	6.32	5.47	–	316.0	274.0
–	100K	–	–	0.007	–	–	7.4560	–	–	4.47	–	–	447.0	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.