

Vishay Spectrol

# <sup>7</sup>/<sub>8</sub>" (22.2 mm) Single Turn Wirewound, **Precision Potentiometer**



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### **FEATURES**

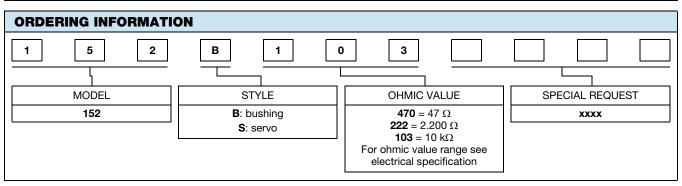
- Rugged, high-quality, all metal housing
- Short length behind panel  $^{11}/_{32}$ " (8.76 mm)



- Ohmic value range: 5  $\Omega$  to 40 k $\Omega$
- Extra taps available
- Bushing and servo mount types
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, single turn wirewound
Output type	Output by turrets
Market appliance	Industrial
Dimensions	<sup>7</sup> / <sub>8</sub> " (22.2 mm)

PARAMETER		
Total Resistance Standard Range	5 Ω to 20 kΩ -	- special to 40 k $\Omega$
Tolerance 50 $\Omega$ and Above: Below 50 $\Omega$	STANDARD ± 3 % ± 5 %	<b>SPECIAL</b> ± 1 % ± 3 %
Linearity (independent) Total Resistance $5\Omega$ to $100\Omega$ $100\Omega$ to $500\Omega$ $500\Omega$ and Above	STANDARD ± 1.0 % ± 1.0 % ± 0.5 %	BEST PRACTICAL ± 0.75 % ± 0.50 % ± 0.35 %
Noise	100	$\Omega$ ENR
Power Rating (at 40 °C ambient)	2 W derated to zero at 125 °C	
Electrical Angle	340° ± 2°	
Insulation Resistance	1000 M $\Omega$ minimum 500 V $_{DC}$	
Dielectric Strength	1000 V <sub>RMS</sub> , 60 Hz	
Absolute Minimum Resistance	Not to exceed linearity times total resistance or 0.5 W whichever is greater	
Minimum Voltage	0.5 % max.	
Temperature Coefficient of Resistance	Refer to standard re	esistance element data



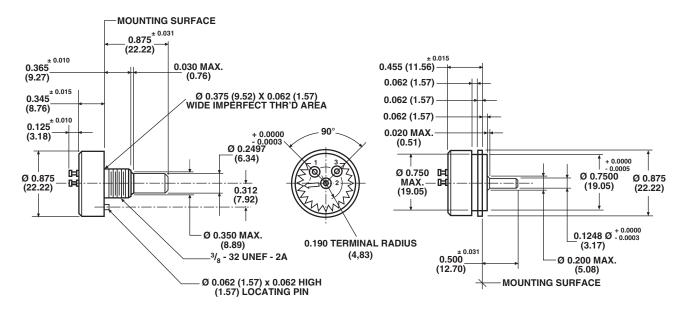
PART NUMBER DESCRIPTION (for information only)				
152-	1	1	103	xxxx
MODEL	STYLE	GANGS	OHMIC VALUE	SPECIAL
	<b>B</b> : 1 <b>S</b> : 2			

Vishay Spectrol

### **DIMENSIONS** in inches (millimeters)

### **BUSHING MOUNT TYPE: 152B/152-1...**

### **SERVO MOUNT TYPE: 152S/152-2...**



TOLERANCES: UNLESS OTHERWISE NOTED. DECIMALS  $\pm$  0.005 ANGLES  $\pm$  2°

MECHANICAL SPECIFICATION	IS		
PARAMETER			
Rotation	360° cc	ntinuous	
	Servo mount: Ball bearing		
Bearing Type	Bushing mount: Sleeve bearing		
Torque (maximums)	STARTING	RUNNING	
Servo	0.25 oz in (18.00 g - cm)	0.15 oz in (10.80 g - cm)	
Bushing	0.30 oz in (21.60 g - cm)	0.25 oz in (18.00 g - cm)	
Mechanical Runouts (maximums)	BUSHING	SERVO	
Shaft Runout	0.002" (0.05 cm)	0.002" (0.05 cm)	
Pilot Dia. Runout	-	0.002" (0.05 cm)	
Lateral Runout	0.005" (0.13 cm)	0.002" (0.05 cm)	
Shaft End Play	0.006" (0.15 cm)	0.005" (0.13 cm)	
Shaft Radial Play	0.003" (0.08 cm)	0.002" (0.05 cm)	
Weight	0.5 oz. maxiı	mum (14.18 g)	

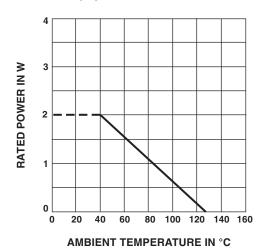


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MATERIAL SPECIFICATIONS	
Housing	Aluminum, anodized
Shaft	Stainless steel, non-magnetic non-passivated
Rear Lid	Molded glass filled phenolic
Terminals	Brass, plated for solderability
Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated

DOWED	DATING	CHADT



ENVIRONMENTAL SPECIFICATIONS		
Vibration	15 <i>g</i> thru	2000 Hz
Shock	50	) g
Salt Spray	96	S h
Rotational Life Shaft Revolution:	Bushing 1 million	<b>Servo</b> 2 million
Load Life	90	0 h
Operating Temperature Range	-55 °C to	- +125 °C

### Note

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

MARKING	
Unit Identification	Units shall be marked with Vishay Spectrol name, model number, resistance and tolerance, linearity terminal identification and data code.  Applicable test procedures: MIL-R-12934 Example of a marking for a standard part: 152-11202



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