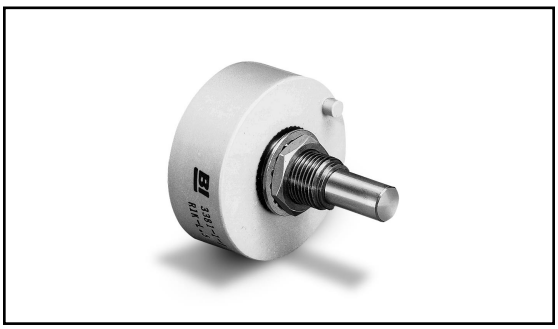
MODEL 3381

1-5/16" Diameter Single Turn Conductive Plastic Precision Potentiometer/ Position Sensor



ELECTRICAL

Resistance Range, Ohms	1K to 300K
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	±5%
Independent Linearity*	±0.5%
Minimum Practical Independent Linearity	±0.25%
Input Voltage, Maximum	400Vdc not to exceed power rating
Power Rating, Watts	2.0 at 70°C derating to 0 at 105°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Output Smoothness, Maximum	0.1%
Actual Electrical Travel, Nominal	348°
Electrical Continuity Travel, Minimum	350°
End Voltage, Maximum	0.5% of Input Voltage
Tap Tolerance	0.5% of Input Voltage
Resolution	Essentially infinite
Temperature Coefficient**	–800 ppm/°C

* Linearity is measured between 1% and 99% of input voltage.
** Special tempco available to ± 100ppm/°C.

ENVIRONMENTAL (MIL-R-39023)

Operating Temperature Range	Static: –65°C to +125°C Dynamic: – 40°C to +125°C
Temperature Cycling	5 cycles, –65°C to +125°C (10% ΔR)
Shock, 6ms Sawtooth	100G's (0.1ms discontinuity max.)
Vibration	10G's, 10 to 500 Hz (2% ΔR, 0.1ms discontinuity max.)
Moisture Resistance	Five 24 hour cycles (25% ΔR)
High Temperature Exposure	Mechanical operation at 125°C (0.5% ΔR)
Rotational Life	10 mil. shaft rev.
Rotational Load Life	10 mil. shaft rev. (10% ΔR)

Specifications subject to change without notice.

MECHANICAL

Total Mechanical Travel	360° continuous (350° ±2° with stop feature)
Number of Gangs, Maximum	1
Weight, Nominal	1.5 oz.
Shaft Runout, T.I.R., Maximum	.0025”
Pilot Diameter Runout, T.I.R., Maximum	.0025”
Lateral Runout, T.I.R., Maximum	.003”
Shaft Radial Play, Maximum	.004”
Start/Run Torque, Maximum	1.0 oz.-in.

SPECIAL FEATURES

Center Tap	CT
Linearity Tape	LT
Flatted Shaft	FS
Slotted Shaft	SS
Stop	ST
Shaft Lock	SL

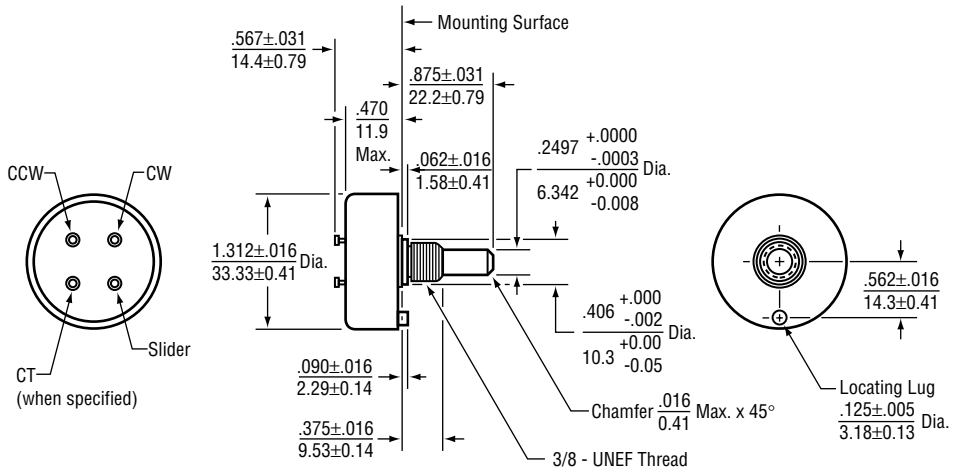
STANDARD RESISTANCE VALUES, OHMS

1K	2K	5K	10K	20K	50K	100K

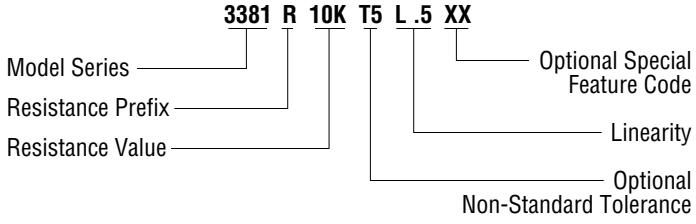
METRIC CONVERSIONS

1 in.	25.4mm	1 oz.-in.	0,007 N-m
1 oz.	28.4 gm	1 lb.-in.	0,113 N-m

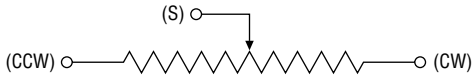
OUTLINE DIMENSIONS (Inch/mm)



ORDERING INFORMATION



CIRCUIT DIAGRAM



NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

Tolerances unless otherwise specified:
Linear = ± .01 inches (.25mm)
Angular = ± 2 degrees