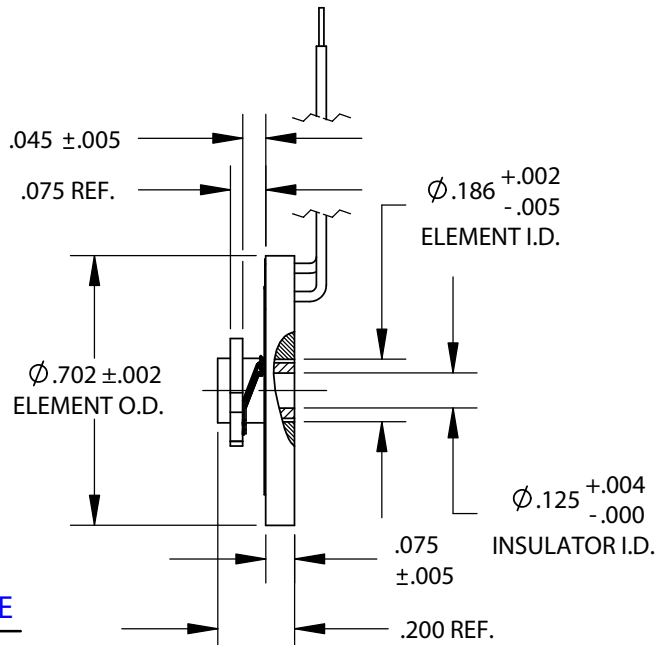
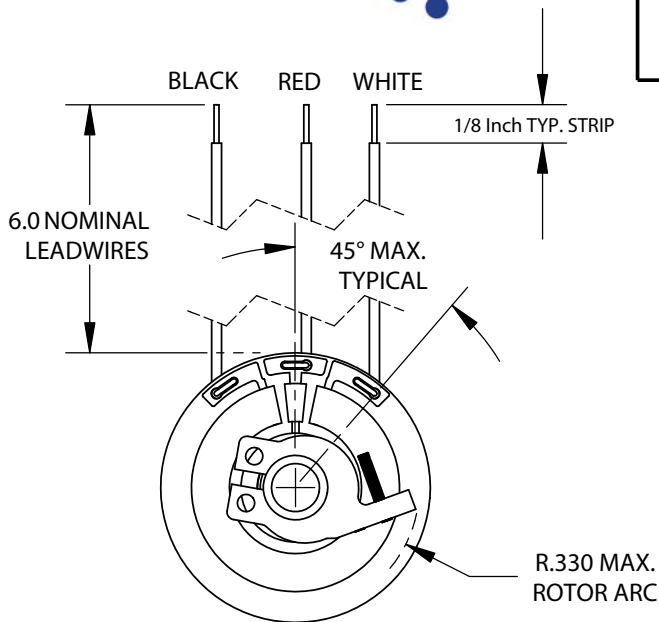
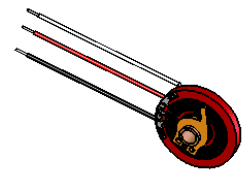


6909 Series
7/8 In. Dia. POTENTIOMETER
ELEMENT ROTOR/WIPER KIT



STANDARD PRODUCT OFFERING

MS PART NUMBER

6909-1000-030
6909-1002-030
6909-1003-030

RESISTANCE

1KΩ ±10%
5KΩ ±10%
10KΩ ±10%

ELEMENT ONLY P/N 6909-1000-070
ELEMENT ONLY P/N 6909-1002-070
ELEMENT ONLY P/N 6909-1003-070

**STANDARD MODEL
ELECTRICAL CHARACTERISTICS**

RESISTANCE, 6909-1000-030:	1kΩ ±10%
6909-1002-030:	5kΩ ±10%
6909-1003-030:	10kΩ ±10%
ACTIVE ELECTRICAL ANGLE:	320°
ELECTRICAL CONTINUITY ANGLE:	330° MIN.
INDEPENDENT LINEARITY:	±0.5%
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.

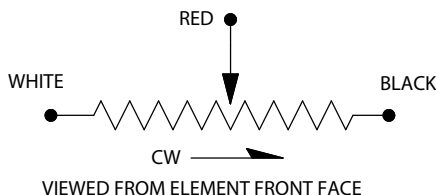
**STANDARD MODEL
MECHANICAL CHARACTERISTICS**

MECHANICAL ROTATION:	CONTINUOUS
TOTAL WEIGHT (ELEMENT ONLY):	0.75 Gm. MAX.
WIRE LEAD LENGTH:	6.0 Inches NOMINAL
ELEMENT OUTER DIAMETER:	0.702±.005 Inch
ELEMENT INNER DIAMETER:	0.186±.002/-0.005 Inch
ROTOR OPERATING RADIUS:	0.330 MAX.
STANDARD ROTOR PART No:	6909-0000-060
INSULATOR INSIDE DIAMETER:	0.127±.002 Inch
INSULATOR LENGTH:	0.200±.000/-0.005
STANDARD INSULATOR PART No:	7040-0005-015

**STANDARD
MATERIALS OF CONSTRUCTION**

RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
GRIP-RING ROTOR:	HEAT-TREATED BERYLLIUM COPPER
INSULATOR:	HIGH-TEMP. MOLDED PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL DIRECTLY WELDED TO ROTOR
LEADWIRES:	#30 AWG TYPE ET STRANDED WIRE TEFLON INSULATED (250V)

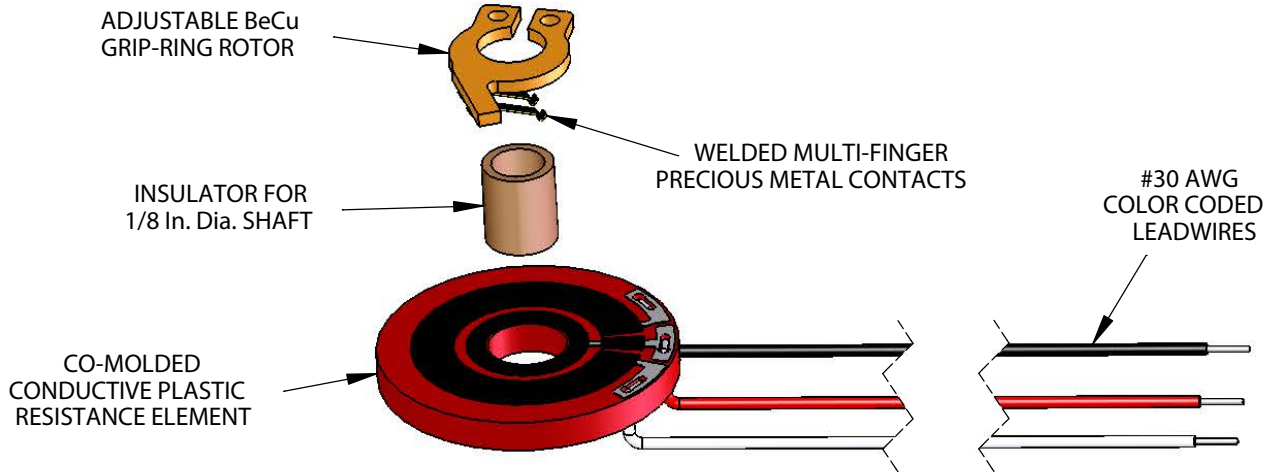
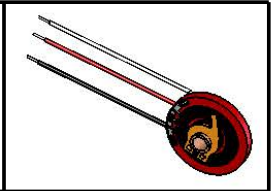
SCHEMATIC DIAGRAM



**STANDARD
ENVIRONMENTAL CHARACTERISTICS**

OPERATING TEMP. RANGE:	-65°C To +125°C
ROTATIONAL OPERATING LIFE:	100 x 10 ⁶ REVOLUTIONS MIN.

6909 Series
7/8 In. Dia. POTENTIOMETER
ELEMENT ROTOR/WIPER KIT



STANDARD ELECTRICAL CHARACTERISTICS

RESISTANCES (±10%):	1KΩ, 5KΩ, and 10kΩ
ACTIVE ELECTRICAL ANGLE:	320°
ELECTRICAL CONTINUITY ANGLE:	330° MIN.
INDEPENDENT LINEARITY:	±0.5%
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.

STANDARD MECHANICAL CHARACTERISTICS

MECHANICAL ROTATION:	CONTINUOUS
TOTAL WEIGHT (ELEMENT):	0.75 Gm. MAX.
WIRE LEAD LENGTH:	6.0 Inches NOMINAL
ELEMENT OUTER DIAMETER:	0.702±.005 Inch
ELEMENT INNER DIAMETER:	0.186+.002/-0.005 Inch
ROTOR OPERATING RADIUS:	0.330 MAX.
INSULATOR INSIDE DIAMETER:	0.127±.002 Inch

STANDARD ENVIRONMENTAL CHARACTERISTICS

OPERATING TEMP. RANGE:	-65°C To +125°C
ROTATIONAL OPERATING LIFE:	100 x 10 ⁶ REVOLUTIONS MIN.

STANDARD MATERIALS OF CONSTRUCTION

RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
GRIP-RING ROTOR:	HEAT-TREATED BERYLLIUM COPPER
INSULATOR:	HIGH-TEMP. MOLDED PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL DIRECTLY WELDED TO ROTOR
LEADWIRES:	#30 AWG TYPE ET STRANDED WIRE TEFLON INSULATED (250V)

AVAILABLE OPTIONS

- CUSTOM RESISTANCE VALUES (500Ω TO 50kΩ) AND TOLERANCES AS LOW AS ±5%
- SPECIAL LINEARITIES AS LOW AS 0.25%, ABSOLUTE (INDEXED) OR INDEPENDENT OVER SPECIFIED REGIONS.
- ADDITIONAL TAPS, CURRENT OR VOLTAGE
- SPECIAL ELECTRICAL ANGLES UP TO 350° MAX.
- SPECIAL WIRE LEADS OR CABLES
- SPECIAL TERMINATIONS OR CONNECTORS
- SPECIAL TRANSFER FUNCTIONS:
NON-LINEAR OUTPUTS
LOAD COMPENSATION
TRIG, LOG, AND EXPONENTIAL OUTPUTS
- SPECIAL ELEMENT DIMENSIONS OR FEATURES SUCH AS LOCATING NOTCHES, SCRIBE MARKS, CUSTOM SUBSTRATE SHAPES.
- CUSTOM ROTOR OR INSULATOR DIMENSIONS AND FEATURES.
- CUSTOM MARKING, IDENTIFICATION OR LOGO.
- SPECIAL ENVIRONMENTAL CAPABILITIES SUCH AS HIGH SHOCK AND VIBRATION.

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