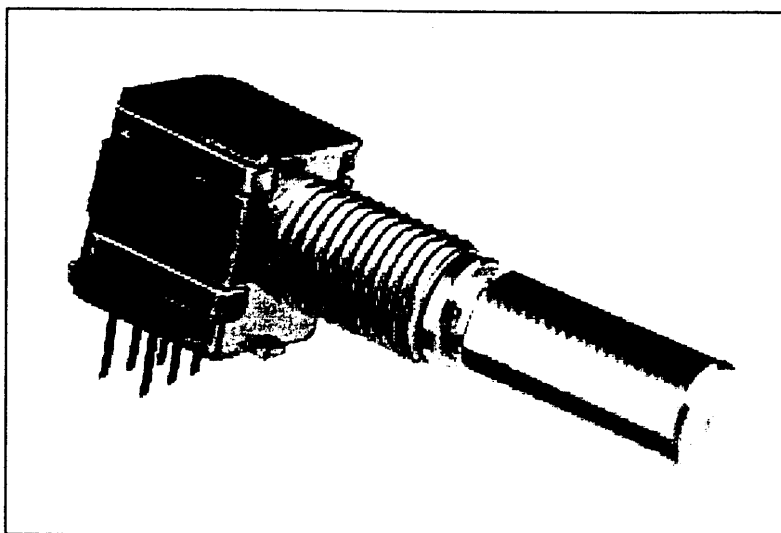


Model

180

Conductive Plastic
Potentiometer



FEATURES:

- Conductive plastic element
- Smooth feel
- High rotational life
- Quiet electrical output
- Robust construction

ELECTRICAL

Resistance Range:

200 Ω to 2.5 meg Ω - Linear
1.0K Ω to 1.0 meg Ω - Non-Linear

Resistance Tolerance:

$\pm 20\%$ standard

Linearity:

$\pm 5\%$ through Independent
(through 100K Ω)

Power Rating:

Bushing Mount

0.10 Watt @ 40°C - Linear Taper
0.05 Watt @ 40°C - Non-Linear Taper

PC Mount

0.5 Watt @ 40°C
Derate to 0 Watt @ 100°C

Minimum Resistance:

10 Ω max. Each End-Linear
10 Ω max. Low End
1% High End - Non-Linear

Max. Cont. Working Voltage:

100 VAC

Dielectric Withstanding Voltage:

Sea level - 300VAC

Dynamic Noise (CRV):

2% of Rt Standard Linear

MECHANICAL

Materials of Construction:

Housing - Moulded Thermoplastic
Shaft - Metal
Wiper - Metal Contact Spring
Bushing - Metal

Construction:

Mounting - Bushing or PC
Locating Pin - @ 6 o'clock
No pin, optional
Not sealed for washing

Terminals:

Number - 3 in line
Type - PC Pins on 0.100"
Grid Standard
Strength - 2lb Push & Pull

Mechanical Rotation:

295° $\pm$ 5°

Torque:

Operating - 0.2 to 2.5 oz. in.
@ 25°C, 0.5 oz. in.
Variation in a Control Stop - 3 in. lbs.

MARKING

Unit identification:

Ink stamp on periphery or rear per
EIA Standard

ENVIRONMENTAL

Storage Temperature:

-40°C to +100°C

Temperature Cycling:

-40°C to $\pm 100^\circ\text{C}$
(5 cycles, 4% ΔR_t)

Load Life:

1000 hours Rated Load @ 40°C
(10% ΔR_t)

Rotational Load Life:

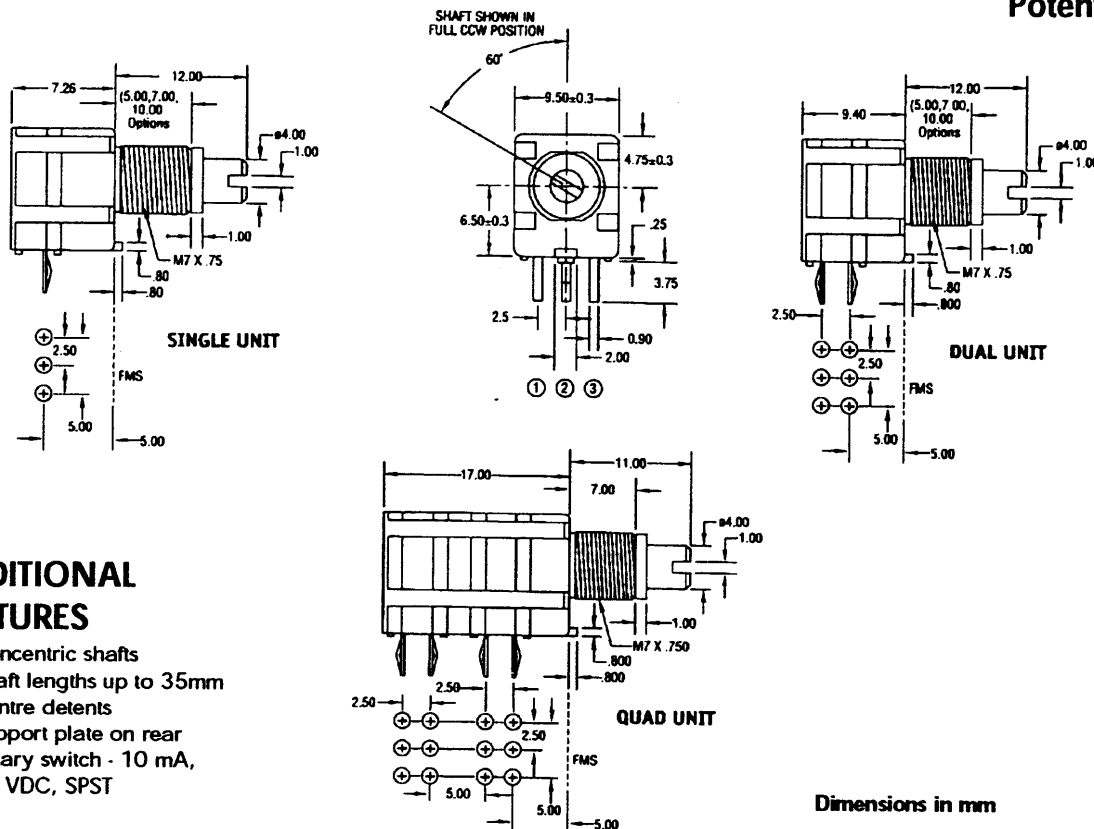
40,000 cycles (10% ΔR_t)

Model

180

Conductive Plastic Potentiometer

DIMENSIONS



ADDITIONAL FEATURES

- Concentric shafts
- Shaft lengths up to 35mm
- Centre detents
- Support plate on rear
- Rotary switch - 10 mA, 12 VDC, SPST

Dimensions in mm

ORDERING INFORMATION

180	S	X	4	P	25	F	102	S	P
Series 180	Number of sections Series 180 S: Single D: Dual Q: Quad	Locating pin Series 180 4: $\odot$ 6 o'clock X: No Loc.Pin	Bushing size & shaft diameter Series 180 Metal shaft: 6mm dia. Q: M7x.75 thrd, 7mm lg P: M7x.75 thrd, 5mm lg R: M7x.75 thrd, 10mm lg Metal shaft: 4mm dia. S: M7x.75 thrd, 7mm lg T: M7x.75 thrd, 5mm lg U: M7x.75 thrd, 10mm lg	Shaft length codes Series 180 Single shafts Code FMS in mm 10 13 16 22 25	Shaft style Series 180 S: Slotted F: Flatted K: Knurled	Resistance code EIA code - first two digits are significant, third digit is the no. of zeros Standard values: 200 50 500 100K 1K 250K 2.5K 500K 5K 1Meg 10K 2Meg 25K 2.5Meg	Taper S: Linear, $\pm 20\%$ Z: CW Log, $\pm 20\%$ R: CCW Log, $\pm 20\%$ Note: Resistance values above 1 Meg ohm are $\pm 30\%$	Mechanical configuration X: Standard D: Centre Detent	Terminal configuration Series 180 P: PC terms 3.5mm lg B: Type B mounting w/rear support plate



Spectrol Electronics Limited
Garrard Way, Swindon, Wiltshire, SN3 3HY, England
Tel: +44 (0) 1793 521351 Fax: +44 (0) 1793 539255 Sales Fax: +44 (0) 1793 525163
E-mail: sales@spectrol.co.uk Web: www.spectrol.co.uk