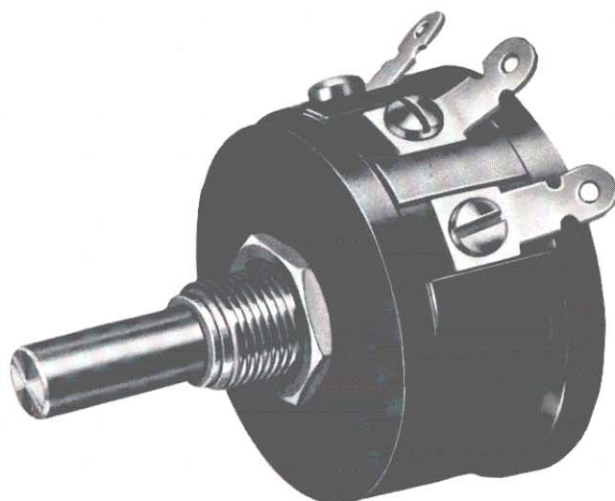


FEATURES

- Economically priced, high quality, general purpose wirewound panel control
- Available with linear or non-linear resistance law
- Up to four sections can be ganged together on a common spindle
- Phenolic body moulding; nickel silver contact; nickel plated, brass spindle and bush; hot tin dipped, brass tags



ELECTRICAL CHARACTERISTICS

Standard Resistance Range

Linear law 25 Ω to 75 k Ω
Non-linear laws 50 Ω to 25 k Ω

(Resistance values outside this range also available)

Selection Tolerance

$\pm 10\%$ ($\pm 5\%$ also available)

Terminal Resistance

Maximum of 0.2 Ω or 0.01% of nominal resistance, whichever is the greater

Angle of Effective Rotation

260° $\pm 5^\circ$

Power Rating

Linear law 2 W at 20°C

Non-linear laws 1 W at 20°C

(Derate to half the above ratings at 70°C)

(For ganged units the front section must be derated to 75%, the rear section to 50% and the middle section(s) to 40% of the above ratings)

Rotation Noise

100 Ω E.N.R. maximum

Temperature Characteristic of Resistance

$\pm 0.75\%$ (+20°C to +70°C)

Insulation Resistance

1000 M Ω minimum at 500 V d.c.

Limiting Element Voltage

400 V a.c. or d.c. r.m.s.

Isolation Voltage

1000 V a.c. peak

Standard Resistance Laws

Linear Law A
Log Law B
Reverse log Law C

(see *Standard Resistance Law graph*)

Linearity

1% typical, 2% maximum

Alignment (Ganged Units)

Sections are aligned to within $\pm 1\%$ at reference point of zero effective rotation

MECHANICAL CHARACTERISTICS

Total Mechanical Rotation

285° $\pm 5^\circ$

(Version with 360° mechanical rotation also available; wiper goes o.c. for approximately 45° of rotation between end terminations)

Starting Torque

7 to 35 mNm

End Stop Torque

1100 mNm

Weight

Approximately 30 g (single gang—9S spindle)

Rotational Life

20,000 cycles; $\Delta R_{ac} \leq 2\%$

No. of Gangs (max.)

4

ENVIRONMENTAL CHARACTERISTICS

Environmental Category

25/70/04

Vibration

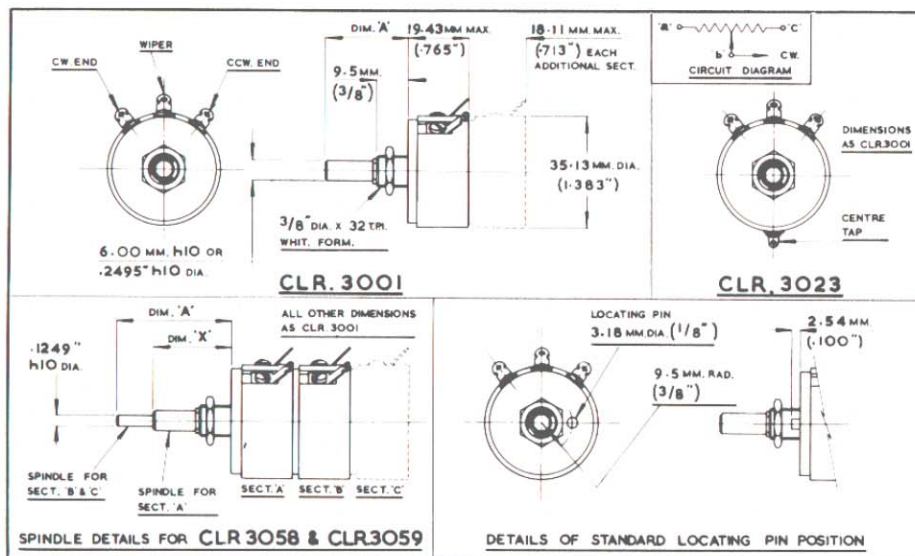
10 to 500 Hz; 10 g; $\Delta R_{ac} \leq 1\%$

Bump

4000 bumps; 390 m/s², 40 g; $\Delta R_{ac} \leq 1\%$

Load Life

1000 h at rated dissipation; $\Delta R_{ac} \leq 2\%$



STANDARD RESISTANCE VALUES

Ohmic Value	Resolution	Ohmic Value	Resolution
25 Ω	0.77%	2 k Ω	0.26%
50 Ω	0.63%	2.5 k Ω	0.23%
100 Ω	0.50%	5 k Ω	0.19%
200 Ω	0.37%	10 k Ω	0.16%
250 Ω	0.38%	20 k Ω	0.13%
500 Ω	0.33%	25 k Ω	0.12%
1 k Ω	0.26%	50 k Ω	0.10%

(Resolution figures relate only to linear resistance law)
(Other resistance values also available)

STANDARD SPINDLE LENGTHS (Dimension 'A')

9S	in. long, $\frac{1}{4}$ in. dia., slotted
11S	in. long, $\frac{1}{4}$ in. dia., slotted
15S	1 in. long, $\frac{1}{4}$ in. dia., slotted
22	$1\frac{1}{2}$ in. long, $\frac{1}{4}$ in. dia., plain
M16S	16 mm long, 6 mm dia., slotted
M25S	25 mm long, 6 mm dia., slotted
M50	50 mm long, 6 mm dia., plain
2409*	Inner spindle: $1\frac{1}{4}$ in. long (dim. A), $\frac{1}{8}$ in. dia. Outer spindle: $1\frac{3}{8}$ in. long (dim. X), $\frac{1}{4}$ in. dia.
2420*	Inner spindle: $1\frac{1}{2}$ in. long (dim. A), $\frac{1}{8}$ in. dia. Outer spindle: 1 in long (dim. X), $\frac{1}{4}$ in. dia.

* Used only on types CLR 3058 and 3059

(Other spindle lengths also available)

STANDARD TYPES AVAILABLE

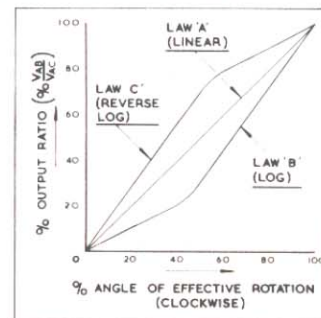
CLR 3001	Basic panel mount potentiometer
CLR 3023	As CLR 3001, plus centre tap
CLR 3024	As CLR 3001, but 360° mechanical rotation
CLR 3033	Two gang, panel mount potentiometer
CLR 3038	Three gang, panel mount potentiometer
CLR 3060	Four gang, panel mount potentiometer
CLR 3058	Two gang potentiometer, with concentric spindle for independent control of each section
CLR 3059	Three gang potentiometer, with concentric spindle; sections B and C are operated by the inner spindle, whilst section A is operated independently by the outer spindle

Note:

Each section of a ganged unit is allocated a letter in sequence, i.e. A, B, C, D, etc.; the section nearest the panel is defined as Section A

A different part number to that indicated above will be allocated when a standard locating pin (see drawing) is specified. Locating pins in other positions are also available

STANDARD RESISTANCE LAWS



MARKING

The marking on the potentiometer of resistance value and tolerance is in accordance with BS 1852, clauses 3 and 4

ORDERING INFORMATION

Specify type number, spindle code, ohmic value, tolerance and resistance law (for each section in the case of ganged units)

Example:

CLR 3001/11S, 5k, 10%, linear law A

Model CLR 3001, basic panel mount potentiometer with $\frac{3}{8}$ in. long, $\frac{1}{4}$ in. dia., slotted spindle, 5 k Ω \pm 10%, linear law A

CLR 3033/22, Section A, 10K, 10%, linear law A; Section B, 2K, 10%, log law B

Model CLR 3033, basic, two gang, panel mount potentiometer with $1\frac{1}{2}$ in. long, $\frac{1}{4}$ in. dia., plain spindle; Section A, 10 k Ω \pm 10%, linear law A; Section B, 2 k Ω \pm 10%, log law B