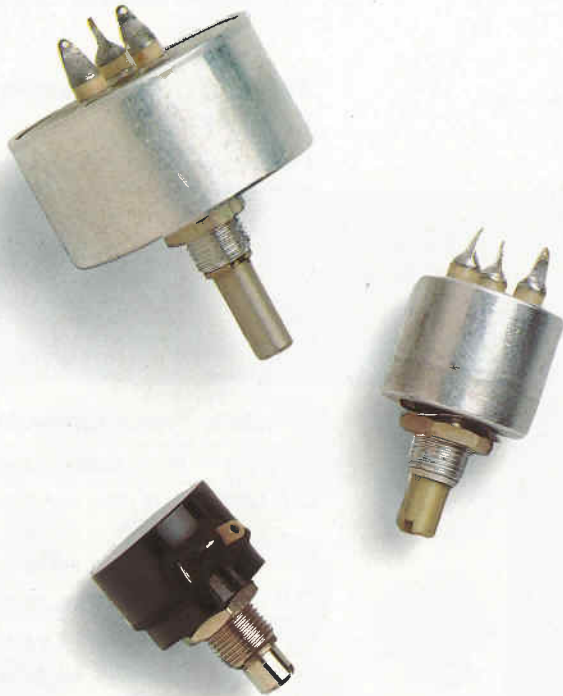


Colvern



Sealed Wirewound

Series CLR1200; 1500; 4200; 4500

Features

- Linear or non-linear laws available.
- CLR 1200/4200**
- Sealed, general purpose panel controls.
- Phenolic body moulding; beryllium copper contact; nickel plated brass spindle and bush.
- Humidity proof construction.
- CLR 1200 has end connections and terminals cemented to body.
- Two gang (CLR 1200), and up to four gang (CLR 4200) units available.
- CLR 1500/4500**
- Container sealed panel controls with spindle and panel seals.
- Aluminium case and bushing; nickel plated brass lid; anodized aluminium alloy spindle; silver plate brass tags insulated from lid by ceramic standoffs.

Electrical Specification

Standard Resistance Range

CLR	1200	1500	4200	4500
50R	LL	LL	LL	LL
100R	*	*	*	*
250R	*	*	*	*
500R	*	*	*	*
1K0	*	*	*	*
2K0	*	*	*	*
2K5	*	*	*	*
5K0	*	*	*	*
10K	*	*	*	*
20K	*	*	*	*
25K	UL	UL	*	*
50K			*	*
100K			UL	UL

* = Preferred value
 LL = Lowest value
 UL = Highest value
 Non-Preferred values are charged at a premium, please consult factory for details.
 Highest value varies from above for non-linear laws.

	CLR 1200	CLR 1500	CLR 4200	CLR 4500
* Power rating @ 70°C Linear law	0.5W	0.5W	1W	2.5 W
Angle of effective rotation	265° ± 15°	265° ± 15°	275° ± 5°	270° ± 5°
Limiting element voltage d.c. or a.c. r.m.s.	250V	250V	400V	500V

* 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. Uprate all ratings by 100% for operation at 20°C.

Selection Tolerance
± 10%

Terminal Resistance
Maximum of 0.2Ω or 0.01% of nominal resistance whichever is the greater.

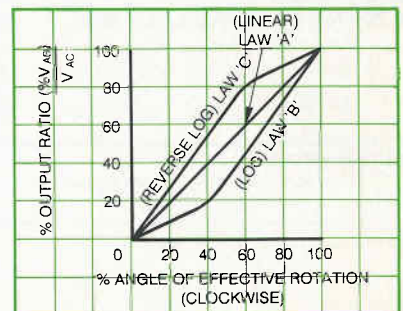
Rotational Noise
100µ E.N.R. maximum

Temperature Characteristic of Resistance
± 0.75% (+20°C to +70°C)

Insulation Resistance
1000MΩ minimum at 100V d.c. (CLR 1200/1500);
at 500V d.c. (CLR 4200/4500)

Isolation Voltage
360V a.c. peak (CLR 1200/1500); 1000V a.c.
peak (CLR 4200/4500)

Standard Resistance Laws

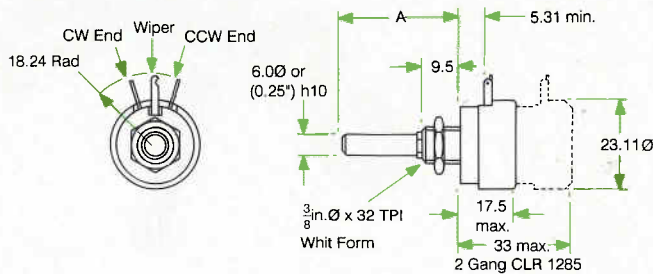


Linearity
1% typical, 2% maximum

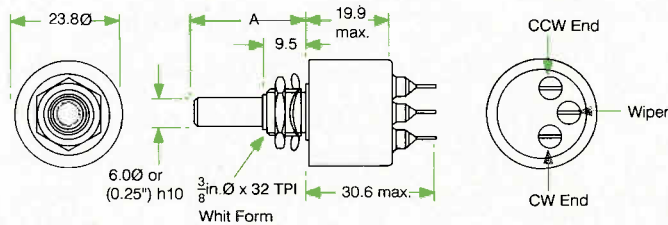
Alignment (Ganged Units)
Sections are aligned to within ± 1% at reference point of 50% effective rotation (CLR 1200) and zero effective rotation (CLR 4200)

Dimensions mm

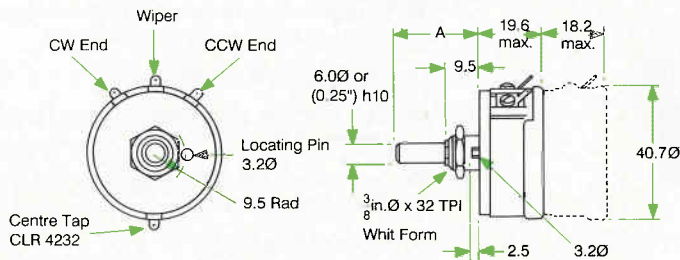
CLR1200



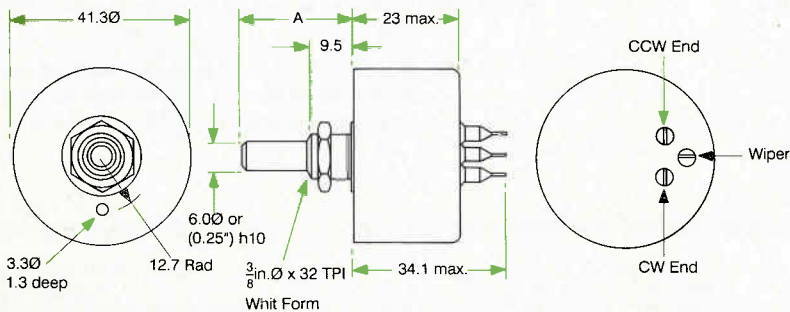
CLR1500



CLR4200



CLR 4500



Mechanical Specification

Total Mechanical Rotation

290° ± 10°
CLR 1200/4200 versions with 360° mechanical rotation also available; wiper goes o.c. for approximately 45° of rotation between end terminations.

Starting Torque

7 to 70mNm (7 to 35mNm:CLR 1200)

End Stop Torque

800mNm (CLR 1200/1500)
1100mNm (CLR 4200/4500)

Rotational Life

25,000 cycles: ΔR_{ac} ≤ 2%

No. of Gangs (max.)

CLR 1200 - 2
CLR 4200 - 4

Environmental Specification

Environmental Category

40/070/21 (CLR 1200/4200)
40/070/56 (CLR 1500/4500)

Vibration

10 to 500Hz; 10g; ΔR_{ac} ≤ 1%

Bump

4000 bumps; 390m/s², 40g; ΔR_{ac} ≤ 1%

Load Life

1000h at rated dissipation; ΔR_{ac} ≤ 2%

Standard Spindle Lengths (Dimension 'A')

For single section units. Multi-section units available with style 22 as standard.

9S	5/8 in. long, 1/4 in. dia., slotted
11S	3/4 in. long, 1/4 in. dia., slotted
22	1 1/2 in. long, 1/4 in. dia., plain

(All lengths are from fixing face)

Standard Types Available

CLR 1206	Basic, sealed, panel mount
CLR 1216	CLR 1206, with 360° mechanical rotation
CLR 1285	Two gang, sealed, panel mount
CLR 1501	Basic, sealed, panel mount
CLR 4201	Basic, sealed, panel mount
CLR 4211	CLR 4201, with 360° mechanical rotation
CLR 4232	CLR 4201 plus centre tap
CLR 4226	Two gang, sealed, panel mount
CLR 4213	Three gang, sealed, panel mount
CLR 4246	Four gang, sealed, panel mount
CLR 4501	Basic, sealed, panel mount

Application notes: 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.

Obtainable from

Ordering Information

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

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Where additional variants, or extended ranges are indicated as being also available, these statements are not intended to imply that types incorporating these particular variants, or range extensions, meet all the above specified parameters. The company reserves the right to alter the specification, design or conditions of supply of any product or service, without prior notice.

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