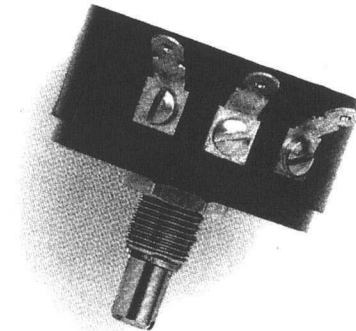


Wirewound Potentiometer

CLR 4000 series

- Wirewound panel control
- RoHS compliant
- Linear and non-linear laws
- Up to 4 gangs available
- Screw terminations available
- 360° mechanical rotation available

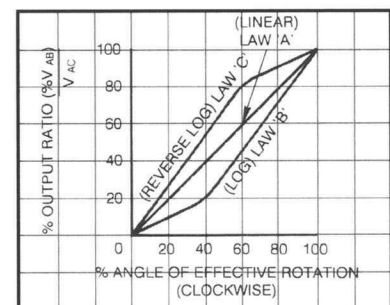
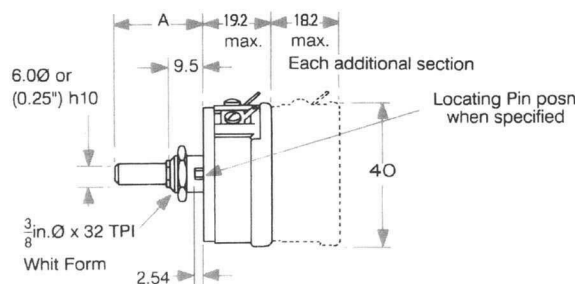
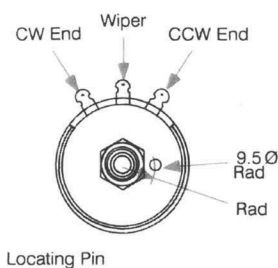


High quality, general purpose wirewound panel control of robust and reliable construction. Phenolic body moulding; nickel silver contact; nickel plated brass spindle and bush electro-tin plated brass termination tags.

Electrical Data

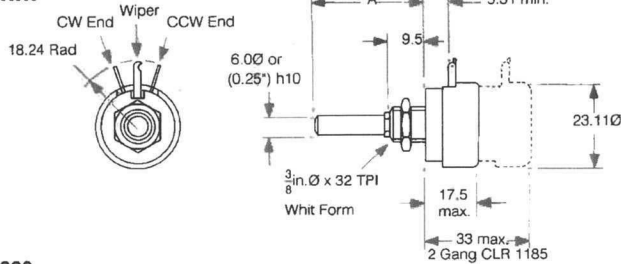
Standard resistance range	50 Ohms to 100,000 Ohms
Selection tolerance	+/- 10% (+/- 5% also available)
Angle of effective rotation	275° +/- 5°
Total mechanical rotation	290° +/- 10°
Power rating	3.0 @ 20°C (1.5W @ 70°C)
Isolation voltage	1000 V a.c. peak
Rotational Noise	100 Ohms E.N.R. maximum
Linearity	+/- 1.0% typical
Starting torque	7 to 35 mNm
End stop torque	1100 mNm maximum
Rotational life	20,000 shaft revolutions

Standard Resistance Laws

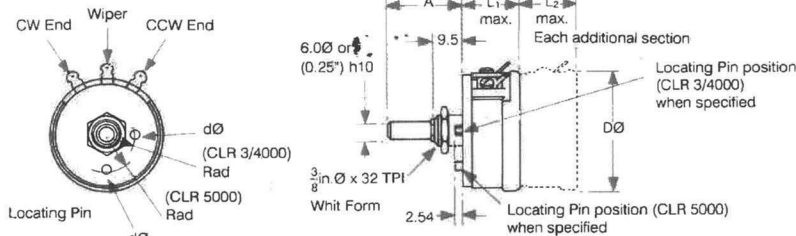


Dimensions mm

CLR 1100

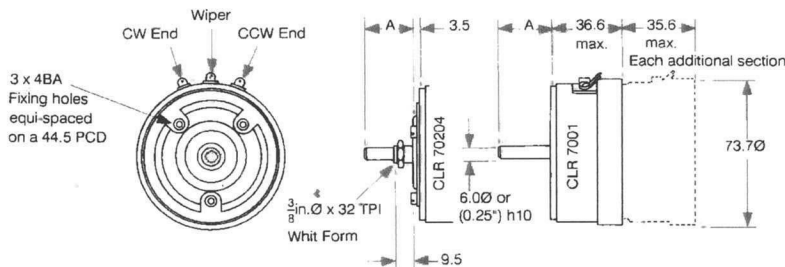


CLR 3000/4000/5000



Dimensions mm	d	RAD	L ₁	L ₂	D
CLR 3000	3.18	9.5	19.43	18.11	35.13
CLR 4000	3.2	9.5	19.2	18.2	40
CLR 5000	3.2	12.7	19.2	18.2	46.4

CLR 7000



Mechanical Specification

Total Mechanical Rotation

See table overleaf.
Versions with 360° mechanical rotation also available; wiper goes o.c. for approximately 45° of rotation between end terminations (40°; CLR 4000, 25°; CLR 7000)

Starting Torque

7 to 35mNm (7 to 70mNm:CLR 7000)

End Stop Torque

800mNm:CLR 1100
1100mNm:CLR 3000/4000
1500mNm:CLR 5000/7000

Rotational Life

20,000 cycles: ΔR_{ac} ≤ 2% (25,000:CLR 5000)

No. of Gangs (max.)

4 (2:CLR 1100)

Environmental Specification

Environmental Category

25/070/04 (25/070/-:CLR 1100)

Vibration (Not CLR 7000)

10 to 500Hz; 10g; ΔR_{ac} ≤ 1%

Bump (Not CLR 7000)

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

* Not CLR 7000

(All lengths are from fixing face)

Standard Types Available

CLR 1106	Basic panel mount
CLR 1185	Two gang, panel mount
CLR 3001	Basic panel mount
CLR 3025	CLR 3001 plus centre tap
CLR 3033	Two gang, panel mount
CLR 3038	Three gang, panel mount
CLR 3060	Four gang, panel mount
CLR 4001	Basic panel mount
CLR 4049	Two gang, panel mount
CLR 40106	Three gang, panel mount
CLR 40118	Four gang, panel mount
CLR 5001	Basic panel mount
CLR 5018	Two gang, panel mount
CLR 5022	Three gang, panel mount
CLR 5044	Four gang, panel mount
CLR 7001	Basic three-hole fixing
CLR 7010	CLR 7001, with 360° mechanical rotation
CLR 70204	Basic bush mounting
CLR 7004	Two gang, three hole fixing, panel mount
CLR 7029	Three gang, three hole fixing, panel mount
CLR 7036	Four gang, three hole fixing, 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

Please be advised that the CLR3000 series potentiometer is NO LONGER AVAILABLE.

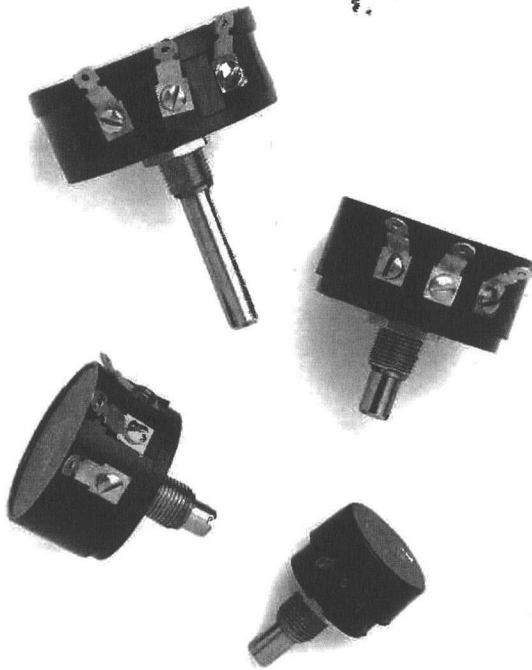
Where additional variants, or extended ranges are indicated as being also available, these statements are not intended to imply that types incorporating these particular variants, or range extensions, meet all the above specified parameters. The company reserves the right to alter the specification,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

Colvern



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A TT GROUP COMPANY

Colver



Wirewound

Series CLR1100; 3000; 4000; 5000; 7000

Features

- General purpose, high quality, high dissipation, robustly constructed styles included in the range.
- Linear or non-linear laws available.

CLR 1100

- Two gang unit available with a common spindle.
- Terminations are cemented to body for greater reliability.
- Phenolic body moulding; beryllium copper contact; nickel plated brass spindle and bush.

CLR 3000/4000/5000/7000

- 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 Specification

Standard Resistance Range

CLR	1100	3000	4000	5000	7000
50R	LL	LL	LL	LL	
100R	*	*	*	*	LL
250R	*	*	*	*	*
500R	*	*	*	*	*
1K0	*	*	*	*	*
2K0	*	*	*	*	*
2K5	*	*	*	*	*
5K0	*	*	*	*	*
10K	*	*	*	*	*
20K	*	*	*	*	*
25K	*	*	*	*	*
50K	UL	UL	*	*	*
100K			UL	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 1100	CLR 3000	CLR 4000	CLR 5000	CLR 7000
* Power rating @ 70°C Linear law	0.5W	1W	1.5W	2.5W	6W
Angle of effective rotation	265° ± 5°	260° ± 5°	275° ± 5°	275° ± 5° (non-linear 270° ± 5°)	300° ± 5°
Total mechanical rotation	290° ± 10°	285° ± 5°	290° ± 10°	295° ± 5°	320° ± 5°
Limiting element voltage d.c. or a.c. r.m.s.	250V	400V	500V	500V	630V

* 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% (1Ω or 0.1%:CLR 7000) 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 500V d.c.

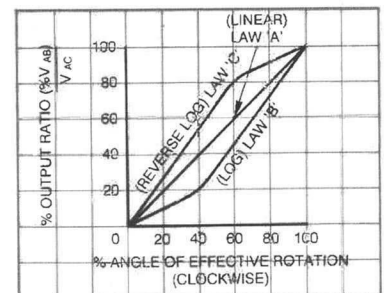
Isolation Voltage

1000V a.c. peak

Linearity

1% typical, 2% maximum

Standard Resistance Laws



Alignment (Ganged Units)

Sections are aligned to within ± 1% at reference point of zero effective rotation (50% effective rotation: CLR 1100).