

Developed specifically for a wide range of demanding applications, our CL series position transducers offer unrivalled performance in terms of accuracy, repeatability, life expectancy and ease of mounting. Such applications include industrial automation, automotive and robotics.

The CLWG uses a twin-bearing actuating rod, backlash-free pivot heads and a superior wiper system to provide outstanding linearity and performance.

## CLWG

### Linear Potentiometer

**Absolute Linear Position to 30 inches (750 mm)**

**3K - 10K ohms • High Cycle Applications**

**Industrial Automation, Test and Robotics Applications**

**IP65 Protection • M12 Connector**

#### General

**Full Stroke Ranges** 0-3 to 0-30 in. (0-75 to 0-750 mm)

**Output Signal** voltage divider (potentiometer)

**Linearity** .04% to .1%, see ordering information

**Repeatability** < 0.01 mm

**Resolution** essentially infinite

**Life Expectancy** 50 million cycles

**Enclosure Material** aluminum

**Sensor** conductive plastic linear potentiometer

**Operating Speed** 200 inches (5 M) per second, max.

#### Electrical

**Input Resistance** 5K to 10K ohms ( $\pm 20\%$ ), see order code

**Recommended Maximum Input Voltage** 25-30 V(AC or DC)

**Recommended Operating Wiper Current**  $\leq 1 \mu\text{A}$

#### Environmental

**Enclosure Design** IP65

**Operating Temperature** -22° to 212°F

**Vibration** up to 10 g to 2000 Hz maximum

# CLWG

Linear Potentiometer

## Ordering Information

### Model Number:

**CLWG** - \_\_\_\_\_ - \_\_\_\_\_  
*order code:*                      **R**                      **A**

Sample Model Number:

**CLWG - 75 - NC4**

**R** range:                      3 inches [75 mm]

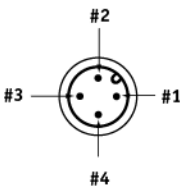
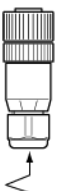

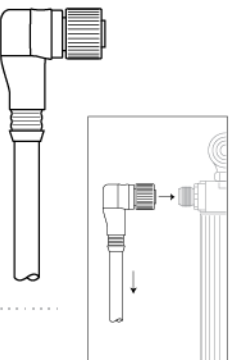
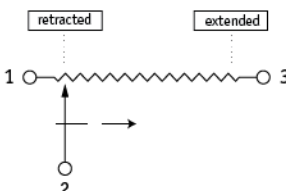
**A** electrical connection: 4-pin, 90° M12 cordset

### Full Stroke Range:

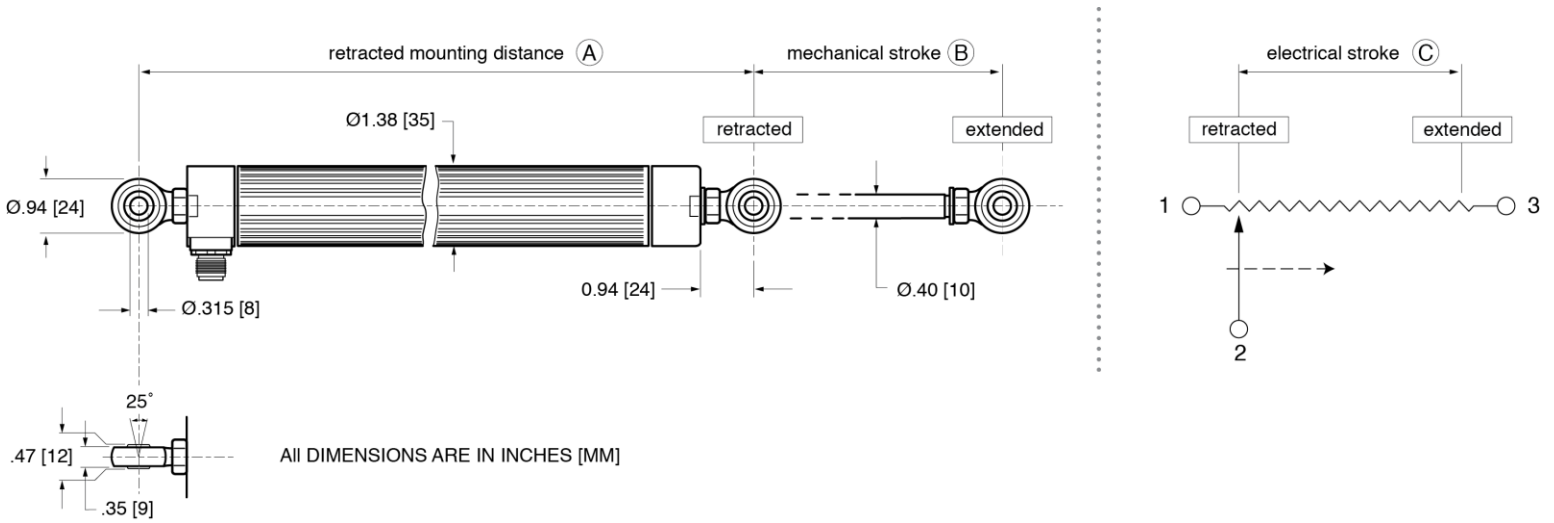
<b>R</b> order code:	75	100	150	225	300	360	450	500	600	750
measurement range, in. [mm]:	3[75]	4[100]	6[150]	9[225]	12[300]	14[360]	18[450]	20[500]	24[600]	30[750]
resistance, (±20%):	3K	3K	5K	5K	5K	5K	5K	5K	5K	10K
linearity, %:	0.1%	0.1%	0.08%	0.07%	0.06%	0.05%	0.05%	0.05%	0.05%	0.04%

### Electrical Connection:

**A** order code:

blank	MC4	SC4	NC4										
4-pin M12 connector <i>(no mating plug supplied)</i>	4-pin M12 connector w/ mating plug	4-pin M12 connector and 4 meter length cordset w/straight mating plug	4-pin M12 connector and 4 meter length cordset w/90° mating plug										
 <p>male receptacle (contact view)</p>	 <p>0.13" - 0.20" OD Cable (4mm - 6mm)</p>	 <p>4-conductor 22 AWG</p>											
		<table border="1"> <thead> <tr> <th>Pin#</th> <th>Cordset Wire Color</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BROWN</td> </tr> <tr> <td>2</td> <td>WHITE</td> </tr> <tr> <td>3</td> <td>BLUE</td> </tr> <tr> <td>4</td> <td>BLACK</td> </tr> </tbody> </table>	Pin#	Cordset Wire Color	1	BROWN	2	WHITE	3	BLUE	4	BLACK	
Pin#	Cordset Wire Color												
1	BROWN												
2	WHITE												
3	BLUE												
4	BLACK												

**Outline Drawing**



Measurement Range	3	4	6	9	12	14	18	20	24	30	in	mm										
(A)	9.72	10.75	12.72	15.75	18.74	21.69	26.18	28.74	33.70	40.94	in	247	273	323	400	476	551	665	730	856	1040	mm
(B)	3.11	4.13	6.10	9.09	12.09	14.49	18.11	20.08	24.09	30.07 ± 0.02	in	79	105	155	231	307	368	460	510	612	764 ± 2	mm
(C)	2.99	4.01	5.98	8.98	11.97	14.41	17.99	20.00	24.02	30.00	in	76	102	152	228	304	366	457	508	610	762	mm

**NORTH AMERICA**

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