

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**  $-22^\circ$  to  $212^\circ\text{F}$

**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:

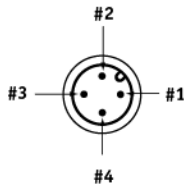
<b>R</b> order code:	75	100	150	225	300	360	450	500	600	750
measurement range, in. [mm]:	3[75]	4[100]	6[150]	9[225]	12[300]	14[360]	18[450]	20[500]	24[600]	30[750]
resistance, (±20%):	3K	3K	5K	5K	5K	5K	5K	5K	5K	10K
linearity, %:	0.1%	0.1%	0.08%	0.07%	0.06%	0.05%	0.05%	0.05%	0.05%	0.04%

### Electrical Connection:

**A** order code:

**blank**

4-pin M12 connector  
 (no mating plug supplied)



male receptacle  
 (contact view)

**MC4**

4-pin M12 connector  
 w/ mating plug



0.13" - 0.20" OD Cable  
 (4mm - 6mm)

**SC4**

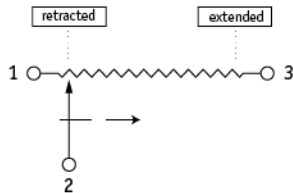
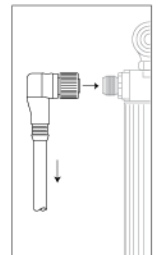
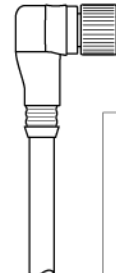
4-pin M12 connector  
 and 4 meter length cordset  
 w/straight mating plug



4-conductor  
 22 AWG

**NC4**

4-pin M12 connector  
 and 4 meter length cordset  
 w/90° mating plug



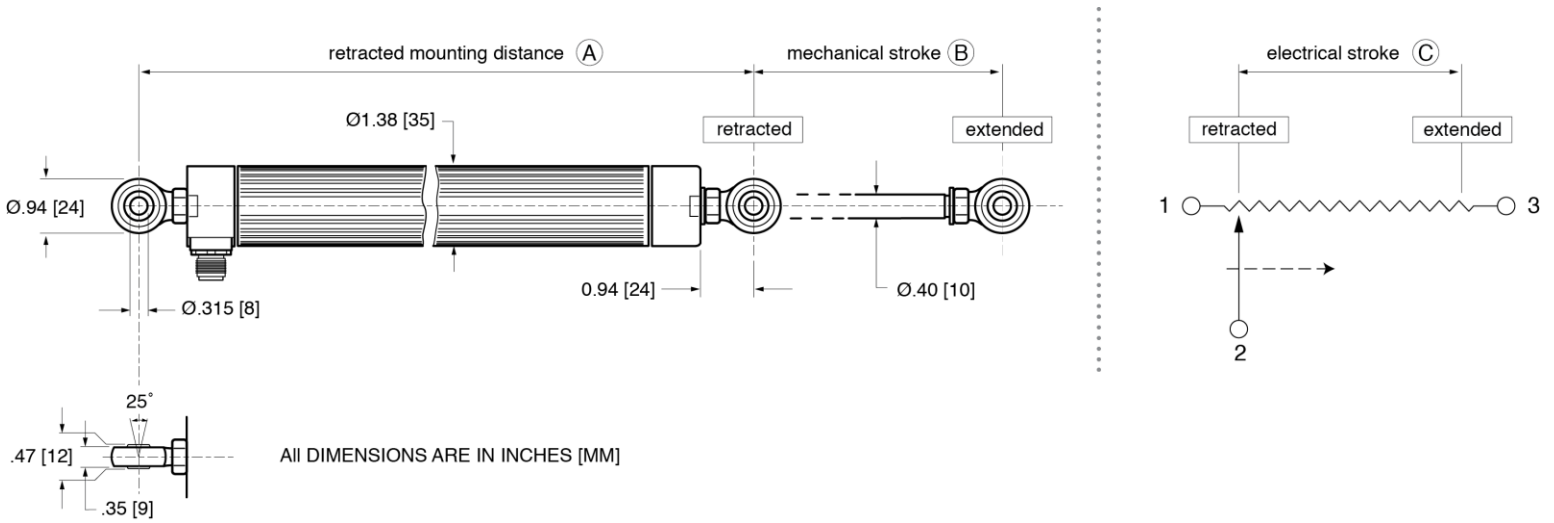
Pin#

- 1
- 2
- 3
- 4

Cordset Wire Color

- BROWN
- WHITE
- BLUE
- BLACK

**Outline Drawing**



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

**NORTH AMERICA**

Measurement Specialties, Inc.,  
 a TE Connectivity company  
 Tel: 800-522-6752  
 Email: [customer-care.chtw@te.com](mailto:customer-care.chtw@te.com)

**TE.com/sensorsolutions**

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