

Linear Potentiometer

Precision Potentiometric Output

Ranges: 0-3 to 0-30 inches [0-75 to 0-750 mm]

3K – 10K ohms • IP65



CLWG

Specification Summary:

GENERAL

Full Stroke Ranges 0-3 to 0-30 in. (0-75 to 0-750 mm)
 Output Signal voltage divider (potentiometer)
 Linearity ± 0.04 to 0.1% full stroke, see ordercode
 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 ordercode
 Recommended Maximum Input Voltage 25-30 V(AC or DC)
 Recommended Operating Wiper Current $\leq 1 \mu\text{A}$

ENVIRONMENTAL

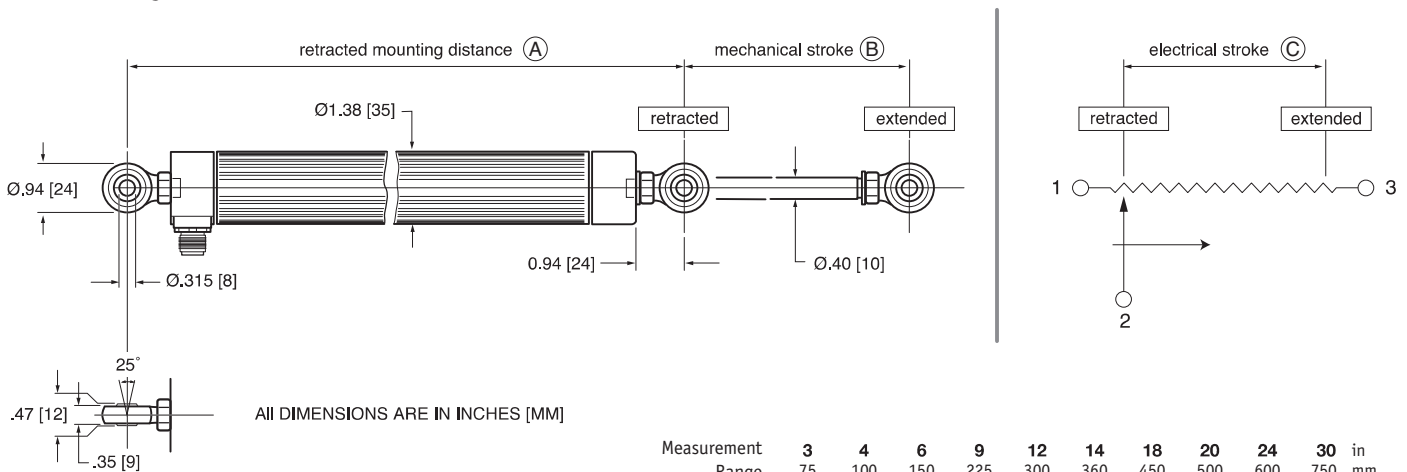
Enclosure Design IP65
 Operating Temperature -22° to 212°F
 Vibration up to 10 G's to 2000 Hz maximum



Developed specifically for a wide range of demanding applications, Celesco's 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.

Outline Drawing



Measurement Range	3	4	6	9	12	14	18	20	24	30	in	mm
A	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	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
C	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



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CLWG • Linear Conductive-Plastic 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:

R <i>order code:</i>	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:

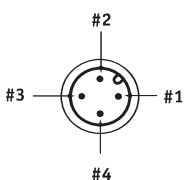
A *order code:* **blank** **MC4** **SC4** **NC4**

4-pin M12 connector
(no mating plug supplied)


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



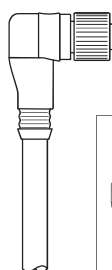
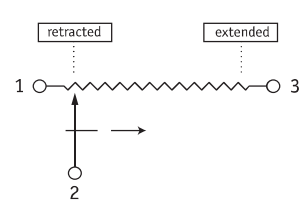
male receptacle
(contact view)



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



4-conductor
22 AWG

Pin#	Cordset Wire Color
1	BROWN
2	WHITE
3	BLUE
4	BLACK

version: 3.2 last updated: February 12, 2013

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