

ERTL Series Linear Motion Potentiometer



- Internal Voltage or Current Conditioner
- Measuring range: 30 - 1000mm
- Outputs: 0-10V, 10-0V, 4-20mA, 20-4mA, 0-20mA, 20-0mA
- Excellent repeatability: <0.01mm
- IP65



Electrical Specifications*

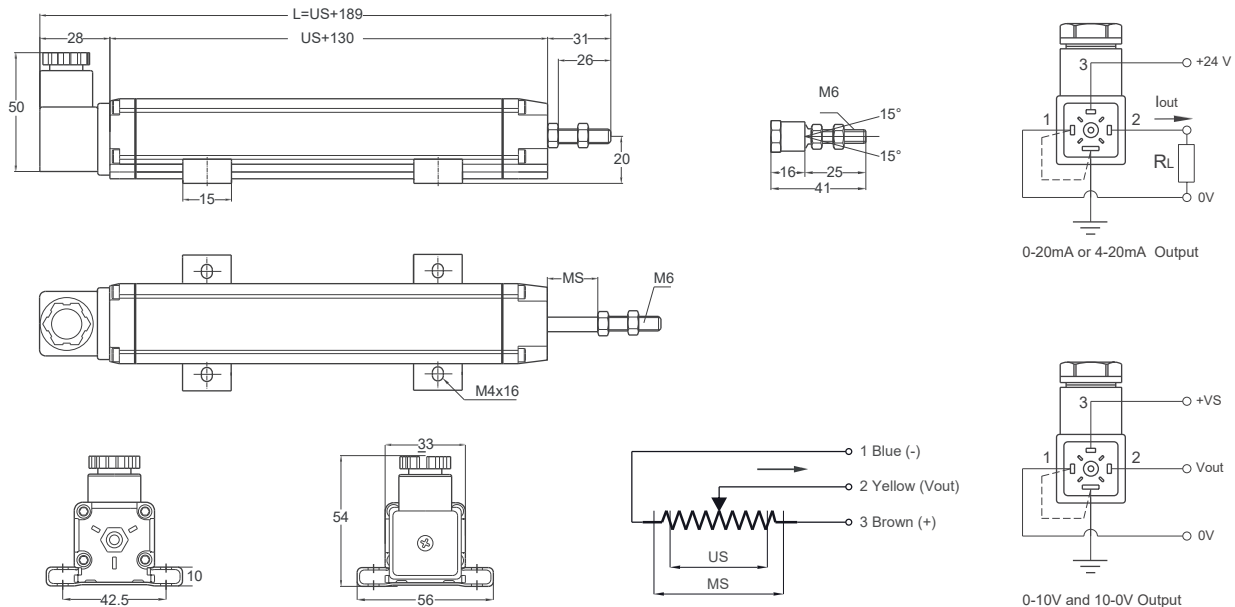
Linearity	$\pm 0.5\%$ ($\leq 75\text{mm}$), $\pm 0.2\%$ (75-130mm) $\pm 0.1\%$ (130-225mm), $\pm 0.05\%$ ($\geq 250\text{mm}$)
Resolution	Infinite
Output	4-20mA or 0-20mA (current output) 0-10VDC (voltage output)
Load resistance	100-500 Ω (current output) 10K Ω (voltage output)
Update rate	<1ms
Supply voltage	15-30VDC
Power consumption	27.5mA (current output) 7.5mA (voltage output)
Temperature coefficient	15 ppm/ $^{\circ}\text{C}$
Insulation resistance	>100M Ω @ 500VDC

Mechanical Specifications*

Measurement stroke	30 - 1000mm (see table below)
Repeatability	<0.01mm
Electrical connections	4 pin connector
Displacement speed	<5 m/s
Mechanical life	100 million cycles
Case dimensions	33mm x 33mm
Case material	Anodized aluminum
Rod material	Stainless Steel
Rod diameter	$\varnothing 6\text{mm}$
Mechanical fixing	Variable brackets
IP degree	IP65
Operating temperature	-20 $^{\circ}\text{C}$ to +80 $^{\circ}\text{C}$
Storage temperature	-30 $^{\circ}\text{C}$ to +90 $^{\circ}\text{C}$
Vibration	5~2000Hz, $A_{max} = 0.75\text{mm}$, $a_{max} = 20\text{G}$
Shock	50 G, 6ms

* Customers should test and verify part performance in any given application. Specifications subject to change without notice.

Dimensions (mm) / Wiring



ERTL (mm)	30	50	75	100	125	130	150	175	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	1000
US (Useful stroke)	30	50	75	100	125	130	150	175	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	1000
MS Mechanical stroke	33	53	78	103	128	133	153	178	203	228	253	278	303	328	353	378	403	453	503	553	603	653	703	753	803	853	903	1003
L (Total stroke)	219	239	264	289	314	319	339	364	389	414	439	464	489	514	539	564	589	639	689	739	789	839	889	939	989	1039	1089	1189

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ERTL Series Linear Motion Potentiometer



Ordering Code

Model	Measurement stroke (mm)	Linearity (%)	Output	Connector
ERTL	500	D	V10	CH1
ERTL	30 - 1000 mm	A: ± 0.5 (≤ 75 mm) B: ± 0.2 (75 - 125mm) C: ± 0.1 (130 - 225mm) D: ± 0.05 (≥ 250 mm)	I40 : 4-20mA V10 : 0-10V I04 : 20-4mA V01 : 10-0V° I20 : 0-20mA I02 : 20-0mA°	CH1 : 4 pin connector

Examples:

- ERTL 50 A V10 CH1 (positive gradient)
- ERTL 50 A V01 CH1 (negative gradient)
- ERTL 150 C I4 CH1 (positive gradient)
- ERTL 150 C I04 CH1 (negative gradient)
- ERTL 500 D I20 CH1 (positive gradient)
- ERTL 500 D I02 CH1 (negative gradient)