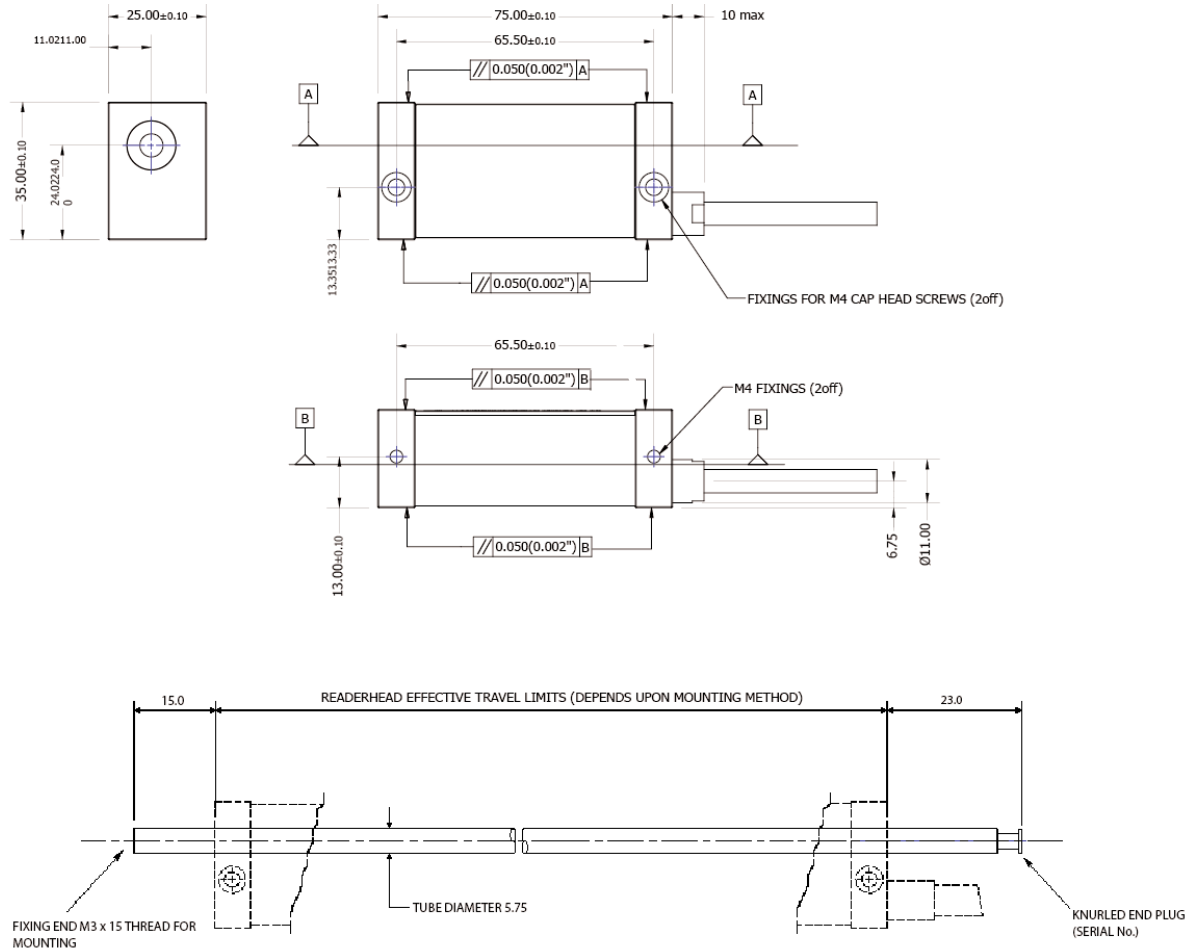


DMG-TT, EV & EM LINEAR ENCODER DATASHEET

NEWALL

- High tolerance to shock and vibration
- Comparable range of accuracy and resolutions
- High level of repeatability
- Thermal co-efficient of expansion is similar to steel
- Zero maintenance
- Easy installation
- Travel lengths up to 1 metre



Type	Inductive	Maximum scale travel	1000mm (39.4 in.)
Output signal	TTL, 1Vpp & 11µApp	Maximum single end mount measuring length	250mm (10 in)
Accuracy grade (µm/m)	+/-5 (+/-0.0002 in)	Scale over-travel requirements	173mm (7 in)
Resolutions (µm)	1, 2, 5, 10	Cable	9 core screened cable with PUR (polyurethane) cover with armour
Resolutions (in)	(0.0001 in, 0.0002 in, 0.0005 in, 0.00002 in)	Cable length	3.5m
Signal Period (1Vpp or 11µApp)	20µm or 40µm	Minimum bend radius with PUR	50.8mm (2in)
Reference type	None	Maximum cable length	20m (787 in)
Maximum traverse rate	1MHz (1m/s at 1µm resolution)	Connector	D type 9 pin, 12 pin Round, 9 pin Round
Maximum Acc. / Dec.	10g / 98m/s (head moving)	EMC compliance	BS EN 61000-6-4 & BS EN 61000-6-2
Power supply	5VDC +/- 5% < 80mA	OPTIONS	
Shock (11ms)	100g / 980m/s ² (IEC 69-2-6)	Cable length option	7 metre
Vibration (55-2000Hz)	30g / 294m/s ² (IEC 68-2-27)		
Ingress protection level	IP67 (Exceeds NEMA 6)		
Operating temperature range	0 to 55°C (32 to 131°F)		
Storage temperature range	-20 to 70°C (-4 to 158°F)		
Overall cross-section	35 x 25mm (1.4 x 1in)		
Scale material	Carbon Fibre		
Co-efficient of expansion	12ppm/°C		
Scale OD	5.75mm (0.2 in)		

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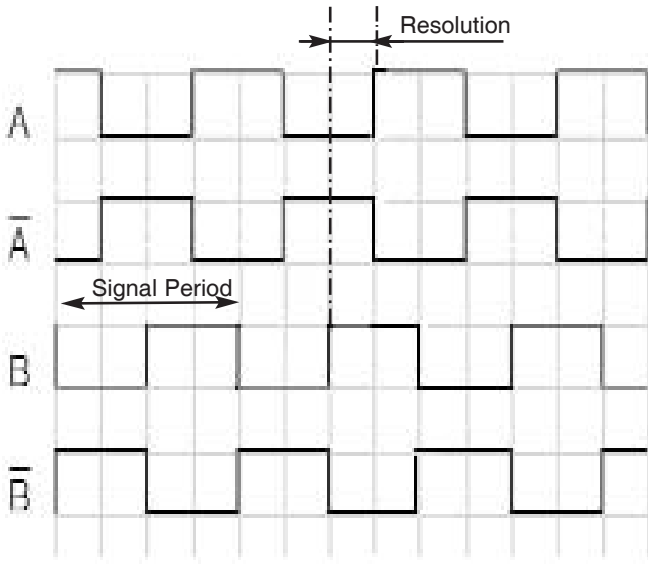
NOTE: Newall Measurement Systems Ltd. reserves the right to change the specification without notice.

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DMG-TT - TTL Output Signal - Differential Quadrature

Newall TT Series Linear Encoders provide a differential quadrature output at RS422 TTL levels. The output signals are transmitted via 9-core cable.

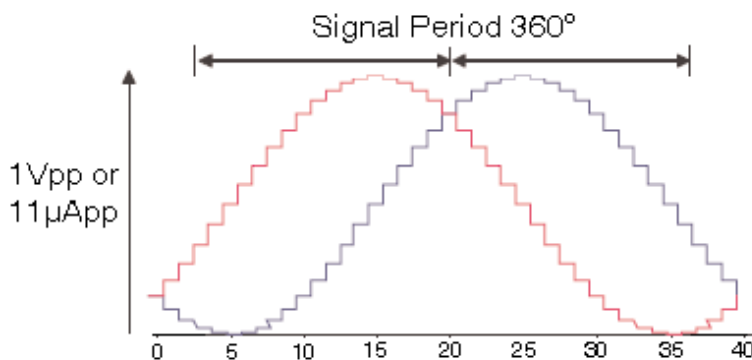
The distance between two successive edges of the combined pulse trains A and B is one measuring step (resolution).



DMG-EV & EM - 1Vpp & 11µApp Output Signal

Newall EV & EM Series linear encoders provide differential sinusoidal output signals that are phase shifted by 90°, and can provide 1Vpp or 11µApp signal levels depending on which model is selected.

The output signals are transmitted via 9 core cable.



1Vpp is available with 20µm signal period only

11µApp is available with 20µm or 40µm signal period

Assumes 120 Ohm termination resistor