

# LMM Designs Flow Meter Head Mounted Lineariser TLIN

<b>Basic Description</b>	The head mounted electronics will amplify and linearise any flow meter output then process the information to a 0-10VDC or 4-20mA linear signal and a 0-4800Hz linear frequency, at a speed of 1.5 to 2.5 milliseconds. Comprehensive software, graphical editing, down load and upload to LIN board.
<b>Power</b>	9 to 32 Vdc, 950mW, reverse polarity protection
<b>Flow Meter Input</b>	Three types are supported as standard and can be Configured by the customer by plugin link on the PCB
	<p><b>Rf</b> range 1 Hz to 4 kHz, inductance 1 mH, DC resistance 10 to 13 Ohm oscillator 45 to 55 kHz OEM versions for different pickoffs</p> <p><b>Sine</b> 10mV to 10V P-P direct mag interface</p> <p><b>Pulse</b> Standard voltage pulses low level &lt;1.5V High level &gt;3V to 30V, 1-32000Hz input Impedance =&gt;10,000 Ohms.</p>
<b>Temperature</b>	RTD 4-wire, temperature range: -100 to + 400°C Type 100 ohm platinum, correlation: $\alpha = 0.0035$ , Accuracy: RTD $\pm 1$ °C <b>Or</b> Voltage 0 to 10 V, A/D conversion 16 bit
<b>Linearisation</b>	Flow meter signal input, 2 to 32 points of linear interpolation Organised as Frequency verses Flowrate.
	<p><b>Temperature</b> PT100 using a 4<sup>th</sup> order polynominal 0-10VDC input 10 points linear interpolation 2 to 32 points temperature verses viscosity 2 to 32 points temperature verses density Strouhal vs. Roshko temperature expansion correction</p>
<b>Output Update Time</b>	Programmable from 0 to 3.5 seconds
<b>Zero Cut off</b>	Programmable from 0 to 3.5 seconds
<b>Outputs</b>	<p><b>Frequency</b> Linearised frequency 0 to 5 V pulse, NPN reference 0V full scale frequency range 50 to 4800 Hz Impedance: <math>\leq 2.2</math> kOhms accuracy: <math>\leq 0,1</math> % of reading, resolution 0,018 Hz/step linearisation latency 2.5 –3.5 msec + period of input</p> <p><b>Analogue</b> 0-10 Vdc, linearised, scaled for flowrate zero offset <math>\leq 10</math> mV, accuracy: <math>\leq 0,1</math> % of full scale 16 bit, resolution 0.16 mV. Optional 4-20mA plug in board.</p> <p><b>Analogue</b> 0-10 Vdc, linearised, scaled for temperature zero offset <math>\leq 10</math> mV, accuracy: <math>\leq 0,1</math> % of full scale 16 bit, resolution 0.16 mV. Optional 4-20mA plug in board.</p>
<b>Communication</b>	RS232, Baud rate: 19200 win 95 and up, windows NT and up compatible. Data input: manually / electronically Data output: Full data file stored in board and on disk.
<b>Environment</b>	Temperature: Operating – 40 to + 85 °C, storage -55 to + 125 °C Humidity: 0 to 85 % RH non-condensing
<b>CE Approval</b>	EN50081-1, EN50082-1, EN61010

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