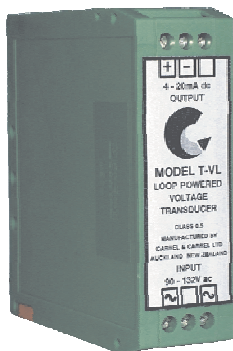




# T-VL LOOP POWERED VOLTAGE TRANSDUCER



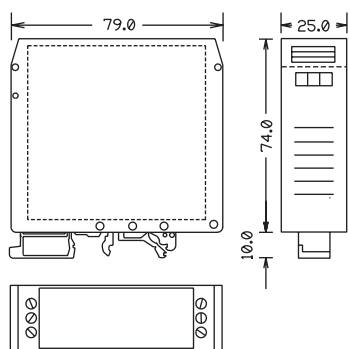
The Carrel Electrade T-VL voltage transducer converts a sinusoidal ac voltage into a load independent dc current or voltage signal capable of driving a number of independent instruments. Low voltage dc power for the unit is feed from the remote measuring instrument via the two wire signal line. The output signal is calibrated to rms, based on an arithmetic mean measurement of the rectified input signal, and hence the transducer should be used with undistorted sine waveforms (<1% distortion). The power supply for the unit, which is derived from the loop circuit, permits low input burdens and high linearity.

The unit conforms to IEC 60688. In addition it meets the insulation requirements of IEC 60255-5, clauses 5, 6 and 8 as well as the high frequency disturbance test of IEC 60255-22-1 for Class III test voltage.

## Specifications

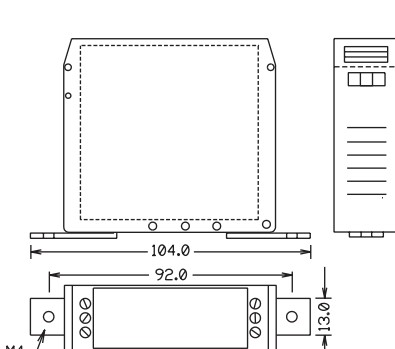
<b>Input</b>	Sinusoidal alternating voltage	
	Standard nominal range $0 - V_{nom}$	: 0 - 150V, 0 - 300V, 0 - 500V (others on request, window version available, e.g. 90-130V)
	Accurate range	: 0 - 120% $V_{nom}$
	Frequency range	: 45 - <u>50</u> - 55 - <u>60</u> - 65Hz
	Burden of input at $V_{nom}$	: 1mA
	Overload capacity	: $2 \times V_{nom}$ continuous : $3 \times V_{nom}$ for 10 seconds
<b>Output</b>	Linear proportional to input	
	Standard nominal output	: 4-20mA dc <750Ω load
	Ripple	: <1% pk to pk of full span
	Response time	: <250ms 0-90% : <500ms 0-99%
<b>Auxiliary Power</b>		: 10-30Vdc injected at any point in the loop.
		Supply voltage must include provision for voltage drop across loads.
		A supply voltage of 25Vdc is recommended.
<b>Accuracy</b>		: Class 0.5 to IEC 60688
		: ±0.5% of nominal output for specified range
	Frequency influence	: <±0.02% per Hz
<b>Isolation</b>	Galvanic isolation between input and output circuits	
	Test voltage	: 4kV rms 50Hz for 1 minute
	Impulse	: 5kV 1.2/50μsec waveform
<b>Temperature</b>	Operating	: -10°C to +20°C to +50°C
	Storage	: -20°C to +70°C
<b>EMC Compliance</b>		: AS/NZS 61000.6.3:2012
<b>Housing</b>	Fire retardant module to IP40 in green polyamide, suitable for surface mounting or DIN EN 50022-35 top hat and EN 50035-G32 G-progile mounting rail.	
<b>Terminals</b>	Tinned steel insertion type with screw and clamp spring suitable for 2.5mm <sup>2</sup> conductor.	

## Housing & Connection Diagrams

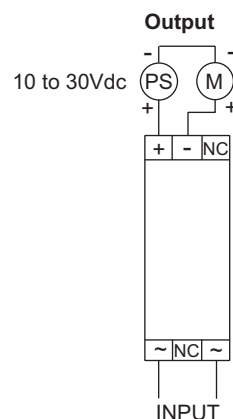


DIN rail mounting

Enclosure 25



Surface mounting



## CARREL ELECTRADE LTD

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