



T-CDL LOOP POWERED DC SIGNAL ISOLATOR



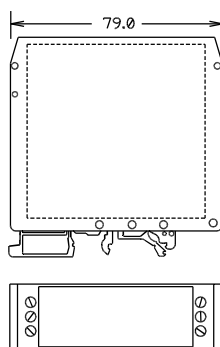
The Carrel Electrade T-CDL dc signal isolator converts a 4-20mA dc current or a dc voltage into a load independent dc current or voltage signal capable of driving a number of independent instruments. The input side is self powered from the input signal. The output signal is powered from the dc loop (4-20mA version) or a dc supply (0-5V, 0-10V versions). Input and output circuits are galvanically isolated from each other allowing the separation of signal circuits.

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.

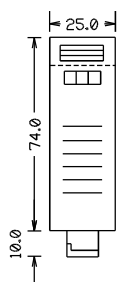
Specifications

Input	DC current or voltage	
	Standard nominal ranges	$I_{min} - I_{nom}$: 4-20mA dc
	(others on request)	$V_{min} - V_{nom}$: 8-16V, 16-32V, 70-150V dc
	Accurate range	: $I_{min} - 120\% I_{nom}$ or $V_{min} - 120\% V_{nom}$
	Burden of input at I_{nom}	: 5V drop
	Burden of input at V_{nom}	: <5mA
Output	Overload capacity	: $1.2 \times I_{nom}$ or V_{nom} continuous
		: $2 \times I_{nom}$ or V_{nom} for 1 second
	Linear proportional to input	
	Standard nominal outputs	: 2 wire loop 4-20mA dc <750 Ohms load with 24Vdc supply
		: 3 wire 0-5V dc, 0-10V dc >2k Ohms with 24Vdc supply
	Ripple	: No introduced ripple
Power Supply	Response time	: <250ms 0-90%
		: <500ms 0-99%
	4-20mA output	: 8 to 30Vdc (max) across the T-CDL output terminals.
	The supply voltage must include provision for the voltage drop across the loop at full output current.	
	0-5V and 0-10V outputs	: 17 to 30Vdc (max) across the T-CDL output terminals.
		A supply voltage of 24V dc is recommended.
Accuracy		: Class 0.5 to IEC 60688
		: $\pm 0.5\%$ of nominal output for specified range
Isolation	Galvanic isolation between input and output circuits	
	Test voltage	: 4kV rms 50Hz for 1 minute
	Impulse	: 5kV 1.2/50 μ sec waveform
Temperature	Operating	: -10°C to +20°C to +50°C
	Storage	: -20°C to +70°C
EMC Compliance		: AS/NZS 61000.6.3:2012
Housing	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.	
Terminals	Tinned steel insertion type with screw and clamp spring suitable for 2.5mm ² conductor.	

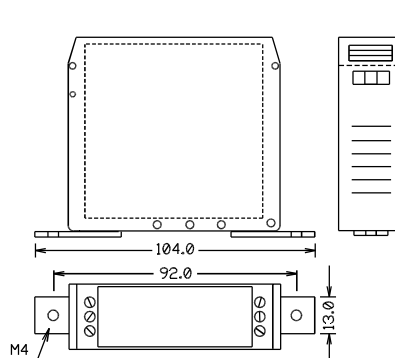
Housing & Connection Diagrams



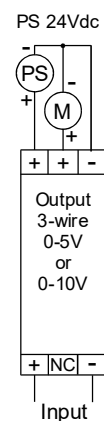
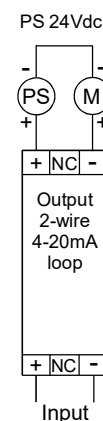
DIN rail mounting



Enclosure 25



Surface mounting



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