

for the conversion of one 0-10VDC input ramp into two 0-10VDC output ramps

Description

The **TSMIM** is a voltage sequencer designed to utilize one universal output from a building automation controller to sequence both a heating valve and a cooling valve or a VAV face & bypass damper control loop or a dual duct VAV unit. It operates on 24VAC power supply and requires a 0-10VDC input signal to transmit two 0-10VDC output ramps, either reverse or direct acting, in sequence. By adjusting the input scale, the zero & span for each output ramp may be established to provide either a proper differential or an overlapping between heating and cooling as desired. The **TSMIM** is housed in a compact and durable extruded aluminum enclosure with an eleven pin male plug-in connector.

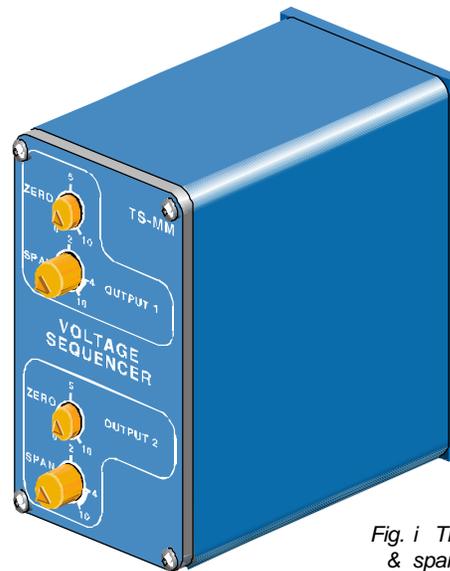


Fig. i The TSMIM is a zero & span adjustable, direct or reverse acting voltage sequencer.

Specifications

Power Supply:	24VAC ±10%
Power Consumption:	1.2VA Maximum
Wire Size:	20 AWG Minimum
Electrical Connections:	11 Pin Male Plug-in
Input Signal:	0-10VDC
Output Signal:	Two 0-10VDC Ramps
Maximum Load:	10kΩ
Lowest Output Impedance:	2kΩ per Output
Enclosure:	Extruded Aluminum Powder Coat Finish
Weight:	0.63 lbs. or 0.28 kilos

Calibration

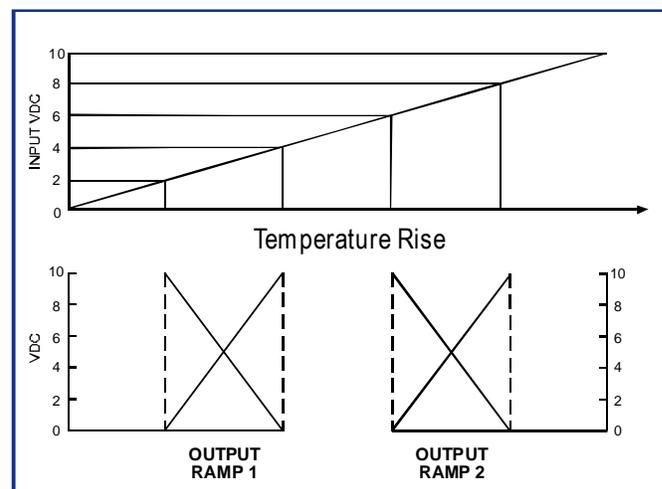
The zero & span of each output are set using the input scale. The output ramps remain 0-10VDC regardless of the settings. Once the operational parameters have been decided, set the "Zero" dial for **OUTPUT 1** to the desired **START POINT** for the first ramp. Set the "Span" dial to the difference between the **STOP POINT** and the **START POINT**. Repeat this procedure for

OUTPUT 2 using the start and stop points for the second ramp. The following example is illustrated in the graph below.

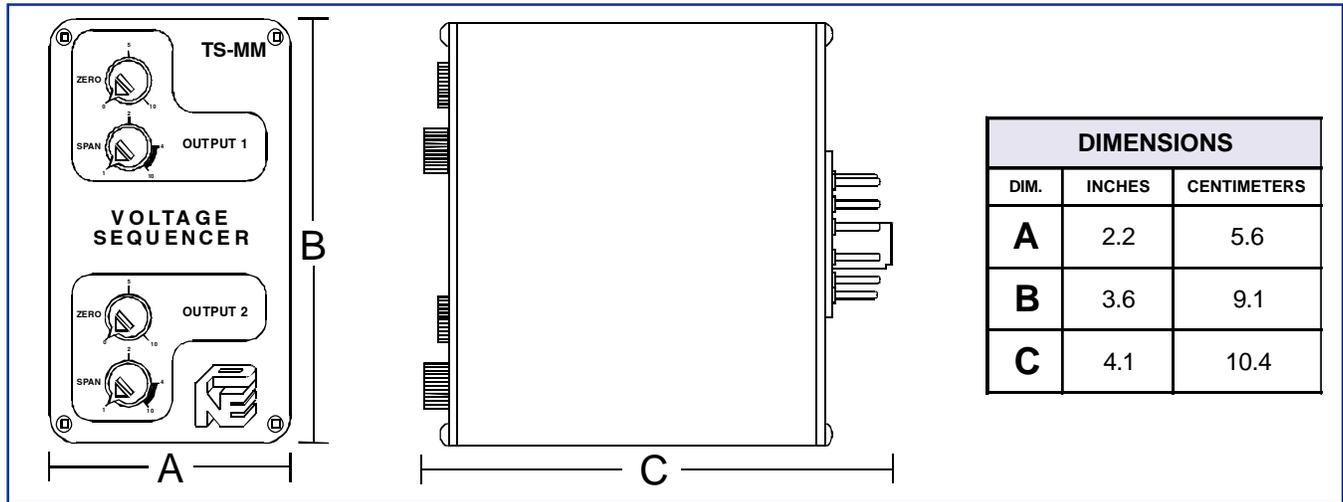
OUTPUT 1: The start point is 2 volts on the Input scale. The stop point is 4 volts on the input scale.
ZERO is 2 volts - SPAN is 2 volts

OUTPUT 2: The start point is 6 volts on the Input scale. The stop point is 8 volts on the input scale.
ZERO is 6 volts - SPAN is 2 volts

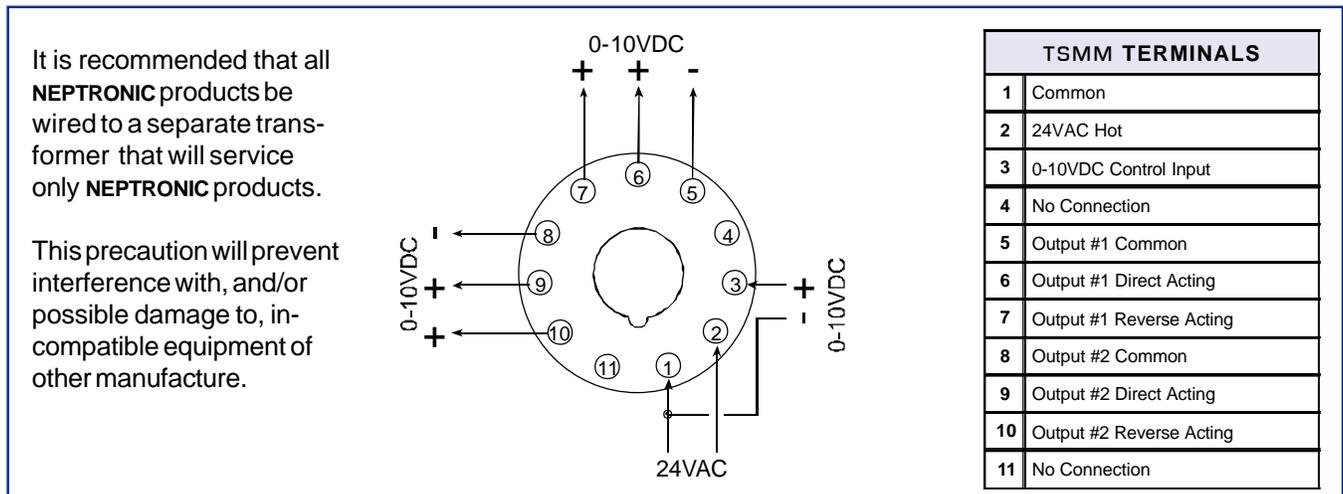
Input/Output Graph



Dimensional Schematics



Wiring Schematic



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