INTEC
c o n t r o l s

VMAC
ANALOG VOLTAGE TO mA CONVERTER

FEATURES

❖ **24V AC or DC operation**
❖ **Zero potentiometer**
❖ **Small size 1.10" by 2.19"**
❖ **Two mounting options**

APPLICATIONS

❖ **Coverts 0 - 10V DC to 4 - 20mA to drive HVAC Actuators. (See Specifications for calibration)**
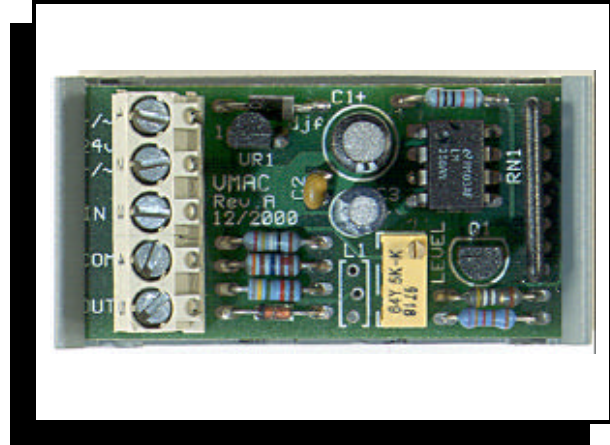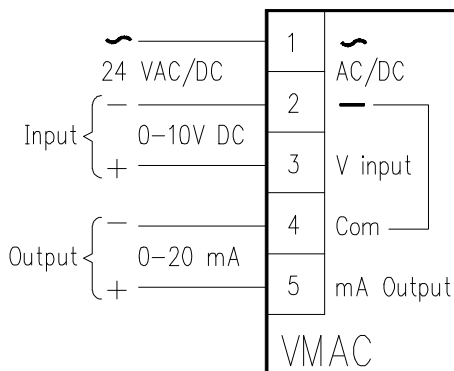❖ **NOT for VFD applications**

DESCRIPTION

The VMAC was designed as a low cost signal converter for those applications where HVAC DDC controllers have a 0-10V DC output without the capability of driving the current required by actuators that use a 4-20mA input signal. When the 0-10V DC is scaled to 2-10V DC the VMAC's output will be 4-20mA. The VMAC is **not** isolated and uses the same common for the input, output, and 24V AC/DC power supply common. The VMAC may be mounted in snap-track inside electrical enclosures or potted for mounting in exposed field locations.

OPERATION

The VMAC uses a halfwave rectifier for 24V AC/DC power, with terminal 2 being common for the power supply, input and output common (terminal 4). The input signal is reduced to 0-1V which is compared against a 0-1V generated by the 0-20mA output circuitry. The output current is independent of the load with the load resistance able to vary between zero and 600 ohms. A calibration potentiometer allows for field adjustment for a 10V input signal to correspond to 20mA output with the specific load resistance connected to the output.

WIRING CONFIGURATION

SPECIFICATIONS

SIZE:	1.10" L x 2.19" W x 0.75" H
MOUNTING:	2.187" RDI snap-track (supplied) or 1"W Double sided foam tape
POWER:	24V AC, ±10%, 50/60Hz, 0.6VA 24V DC @ 45mA (or filtered DC)
INPUT:	0 to 10V DC
INPUT IMPEDANCE:	≥ 100KΩ
ACTION:	Dir. with 2 Hz filtering.
OUTPUT:	0 to 20mA - Standard Calibrated for 4 to 20mA with a 2 to 10V DC input signal. Maximum load 600Ω
ADJUSTMENT:	1 Calibration potentiometer For 20mA output @ 10V DC input.
AMBIENT TEMP:	0 to 50° C.

ORDERING INFORMATION

VMAC/X
└─ Mounting Option Code

MOUNTING CODE OPTIONS

S - 2.187" Snap Track (Standard)
P - Potted enclosure double stick foam tape