ADTECH

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Non-Isolated Millivolt Transmitter Model No. MVT 06

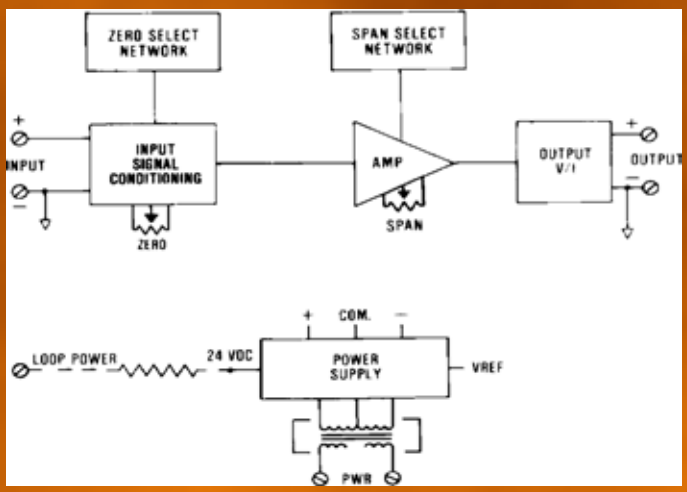
The Adtech Model MVT 06 Non-isolated Millivolt Transmitter PROVIDES HIGHLY ACCURATE CONVERSION of DC millivolt signals to any standard process signal such as 4-20 mA DC, 1-5 VDC, or zero-based output.

The MVT 06 provides standard process or voltage signals on the output with a maximum of 10 mV P/P output ripple. This provides a convenient means of interfacing low-level signals to a computer system or other process instrumentation for improved resolution.

Typical applications include analyzer outputs, other instruments, and general sensor output conditioning.

The current output signals are true current output sources, and output load rejection is less than 0.05% over full-load variation.

Zero and span controls are provided by two infinite resolution potentiometers. Recalibration to other ranges is very easy and convenient.



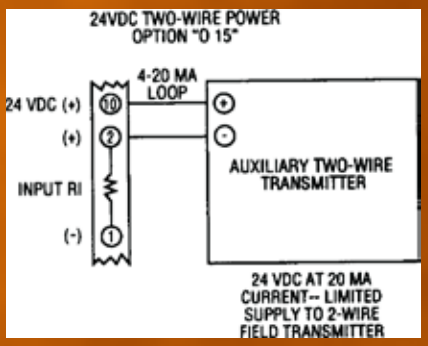
TYPICAL APPLICATIONS

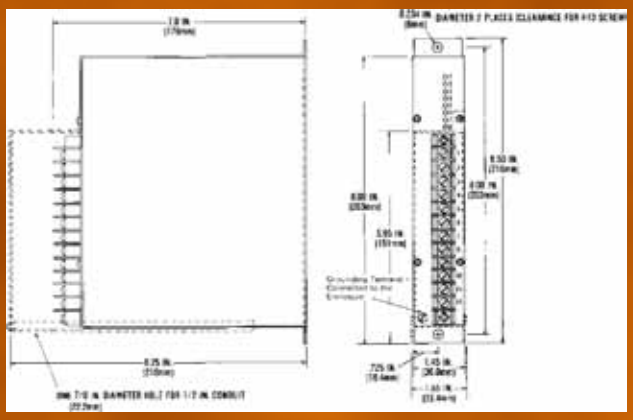
- DC Current shunt interface
- Analyzer interface
- Computer/programmable controller interface
- Low impedance current repeater
- Bridge amplifier
- Millivolt level ratio and bias

FEATURES

- Direct Millivolt Inputs
- Input Spans: 3 mV to 160 mV
- Zero Suppression: -10 mV to +100 mV
- High Input Impedance: 10 megohm minimum
- DC Process Signal Outputs: Current and voltage
- Repeatability: ±0.02% of span typical
- High Accuracy: ±0.1% of span

Connections / Dimensions





INPUT/OUTPUT

Input Signals
3 mV to 160 mV span
(Z in greater than 10 megohms)
Zero suppression: -10 mV to +100 mV

Output signals / Output Drive (RL)

Signal	AC Power (RL)	DC power (RL)
4-20 mA DC	0-1,000 ohms max	0-900 ohms max
10-50 mA DC	0-400 ohms max	0-350 ohms max
0-1 mA DC	0-20,000 ohms max	0-18,000 ohms max
1-5 VDC	100K ohms min	100K ohms min
0-10 VDC	200K ohms min	200K ohms min

PERFORMANCE

Calibrated Accuracy: ±0.1%
Linearity: ±0.1% maximum, ±0.04% typical
Repeatability: ±0.05% maximum
Temperature Stability: ±0.01% / °F maximum, ±0.004%/°F typical
Load Effect: ±0.01% zero to full load
Output Ripple: 10 mV P/P maximum
Response Time: 150 milliseconds
Temperature Range: 0° to 140°F (-18°C to 60°C) operating;
-40° to 185°F (-40° to 185°C) storage
Power Supply Effect: ±0.05% for ±10% power variation
Note: All accuracies are given as a percentage of span.

POWER

115 VAC: 50/60 Hz, 0.7 PF (Standard)
12 VDC: Isolated (Option P8)
24 VDC: Non-Isolated (Option P1)
24 VDC: Isolated (Option P2)
48 VDC: Isolated (Option P3)
125 VDC: Isolated (105-140 VDC) (option P4)
230 VAC: 50/60 Hz, 0.7 PF (Option P5)

Note: All units 3 watts maximum, and ±10% power variation unless noted.

MECHANICAL

Electrical Classification: General purpose
Connection: Barrier terminal strip (3/8" spacing, No. 6 screws)
Controls: Multiturn zero and span controls
Mounting: Surface mounting standard. See Housings Section for options.
Weight: Net Unit: 2.6 pounds (1.18 kilograms); Shipping 3.0 pounds (1.36 kgs)

Options

Option Number	Description
I14	Voltage inputs to 200 VDC, 1 megohm min. impedance current inputs of 100 mA max.
O 10	Bipolar current output (larger than ± 1 mA)
O 11	Bipolar voltage output to ±10 VDC : at 1 mA, bipolar current ±1 mA
O15	Two-wire transmitter excitation
H 10	Thin-line conduit mounting plate and terminal cover
H 13B, H 14B, H 15B	NEMA 4, 7, & 12 Enclosures
H 16	PFA 12 high-density, plug-in enclosures

Ordering Information

- Model number
- Input signal
- Output signal
- Prime power with option no.
- Input/output options
- Housing and miscellaneous options

Please refer to the Housing and/or Option Section for more specific and detailed information.