

# ac Voltage Transmitter v5 AVT145

## DESCRIPTION

The AVT145 produces a process signal output proportional to the measured ac voltage input. The module is produced in **Auxiliary powered** and **Signal powered** versions.

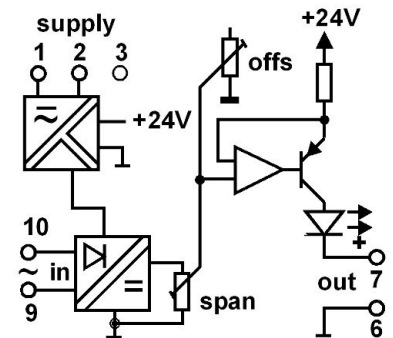
The **auxiliary powered** version can be used for zero based inputs with input spans of 10Vac to 500Vac. Higher input spans available on request. The input circuitry will operate with input signal frequencies of 45 to 410Hz. Input signal is isolated from the output up to 2kV. Various power supply choices are available ranging from 280Vac down to 8Vdc, all provide power isolation. The **signal powered** version is used where inputs input voltage levels are not zero based. (Example - Input 180 to 260Vac, Output 0-10mA). The advantages of this module are that it requires no independent power source as the measured signal powers the module. Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments. The output signal level is indicated by a green LED on the front, which gives a clear indication of module function.



## General Specifications

Size:	52 W x 70 H x 110 D (mm).
Mounting:	DIN-Rail, gear plate.
Termination:	Screw terminals on front.
Housing material:	ABS.
Protection class:	IP40.
Weight:	0.300 kg.
Calibration accuracy:	0.2% of span.
Combined linearity/drift error:	0.2% of span.
Accuracy as AS1384-1973:	Class 0.2.
Front 'OFFS' adjust:	±20% typical.
Front 'SPAN' adjust:	±20% typical.
Temperature effect:	0.02% per °C.
Ambient operating temperature range:	0 - 60°C.
Storage temp. range:	-20...+70°C
Output loop drive:	20mA into 0 - 900Ω 50mA into 0 - 360Ω
Output load change effect:	Less than 0.2% up to max. load
Response time:	Less than 500mS
Max input	1kVac standard.
Frequency Ranges:	45 - 410Hz sine.
Input/Output Isolation	2kV rms.
Power requirements:	3W.
Power supply isolation:	2kV rms.
Electromagnetic compatibility:	Complies with AS/NZS 4251.1 (EN 50081.1)

## Block Diagram



## Note

For accurate measurements of non-sinusoidal wave forms we recommend SI139 with true rms input.

For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

## TYPE NO. DESIGNATION

AVT145 - X XX X X X

### Power Supply:

- 0 = Signal Supply (Specify Freq.)
- 1 = 90-280Vac 50/60Hz (65-280Vdc)
- \*) 3 = 16-48Vac 50/60Hz (10-60Vdc)
- \*) 6 = 8 - 60Vdc.
- \*) 9 = Other specify.

### Input:

#### Auxiliary Powered

- \*) 10 = 0 - 10Vac.
- \*) 11 = 0 - 24Vac.
- \*) 12 = 0 - 30Vac.
- \*) 13 = 0 - 75Vac.
- 14 = 0 - 150Vac.
- 15 = 0 - 300Vac.
- \*) 16 = 0 - 500Vac.

#### Signal Powered

- 20 = 20 - 30Vac.
- 21 = 22 - 27Vac.
- 22 = 100 - 150Vac.
- 23 = 110 - 135Vac.
- 24 = 80 - 160Vac.
- 25 = 200 - 230Vac.
- 26 = 220 - 270Vac.
- 27 = 180 - 260Vac.
- 28 = 200 - 250Vac.

- \*) 19 = Other AUX power specify.
- \*) 29 = Other signal powered specify 280Vac maximum.

### Output:

- 1 = 0 - 5V (50kΩ min).
- 2 = 0 - 10V (100kΩ min).
- 3 = 0 - 20mA (900Ω max).
- 4 = 4 - 20mA (900Ω max).
- 5 = 0 - 50mA (360Ω max).
- 6 = 10 - 50mA (360Ω max).
- 7 = 0 - 10mA (1.8kΩ max).
- 8 = 1 - 5V (50kΩ min).
- \*) 9 = Other specify.

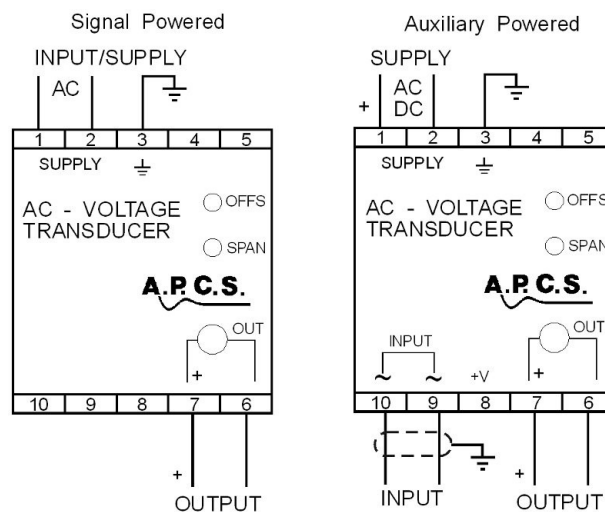
### Action:

- 1 = Direct.
- 2 = Reverse.

### Options:

- 0 = None.
- \*) 2 = Customised response time specify.
- \*) 3 = Output ramp.
- \*) 9 = Other specify.
- \*) = Price Extra..

## Connections



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