



AC Voltage Input 2 Wire Transmitter ACT-2V

Function: 2 wire isolating transmitter which will convert an AC Voltage input into a proportional, linear and highly accurate 4 to 20mA current output signal. An internal transformer isolates the input from the output enabling the transmitter to withstand large momentary inputs. The input to output isolation, high surge current capability and high output signal-to-noise ratio makes the transmitter highly immune to ground loop signals and RFI problems. Calibration is performed by means of one internal coarse range resistor and Zero and Span multiturn potentiometers brought out to the front panel for fine tuning. The transmitter is equipped with a test terminal which enables the user to measure the output current without breaking the current loop. The test terminal gives a voltage output (measured across an internal 10 ohm resistor) proportional to the output current. The transmitter is housed in a polycarbonate plastic enclosure suitable for mounting on DIN rail.

SPECIFICATIONS

Please note that the following are typical ranges. We will manufacture instruments to cater for other ranges within limitations detailed below. All instruments come with span and zero potentiometers for fine tuning on site.

INPUTS: ACT-2V

AC Voltage

(factory set)
0 to between 80 to 420 Volts AC RMS
e.g. 0 to 115 Volt AC RMS
0 to 230 Volt AC RMS
0 to 400 Volt AC RMS

Input Burden

0.4VA @ 230 Volts AC input
0.3VA @ 120 Volt AC input

Frequency Range

40 to 500 Hz

Frequency Variation Effect

< $\pm 0.2\%$ / Hz

Calibration

Coarse: 1 resistor
Fine: 2 multiturn potentiometers
Zero: $\pm 35\%$ of span minimum
Span: $\pm 25\%$ of span minimum

OUTPUTS:

DC Current

4 to 20mA

Test Terminals

40 to 200mV representing
4 to 20mA

Loop Drive Capability

$R_L \text{ max} = (V_{\text{SUPPLY}} - 10) / 0.02$

i.e.	V_{SUPPLY}	$R_L \text{ MAX}$
	12 Volts	100 ohms
	24 Volts	700 ohms
	32 Volts	1100 ohms

Output Ripple

< $\pm 0.1\%$ of span RMS

Isolation

2500 Volts RMS / 1 minute

SUPPLY:

Power Supply Voltage

10 to 32 Volt DC
reverse polarity protected

Supply/Load Variation Effect

< $\pm 0.03\%$ of span for full change

GENERAL:

Accuracy (for 2 to 100% of Input)

Better than $\pm 0.1\%$ of span for pure sinusoidal input

Common Mode Rejection

122 dB typical, 117 dB minimum

Temperature Coefficient

$\pm 0.15\%$ of span / $\Delta 10^\circ\text{C}$

Response Time

220mS (0 to 98% of span)

Operating Temperature Range

-20 to $+70^\circ\text{C}$

Option:

-30 to $+80^\circ\text{C}$

Storage Temperature Range

-40 to $+90^\circ\text{C}$

Operating/Storage Humidity Range

5 to 95% RH non-condensing

Mounting

Standard 35mm DIN rail

Protection Level

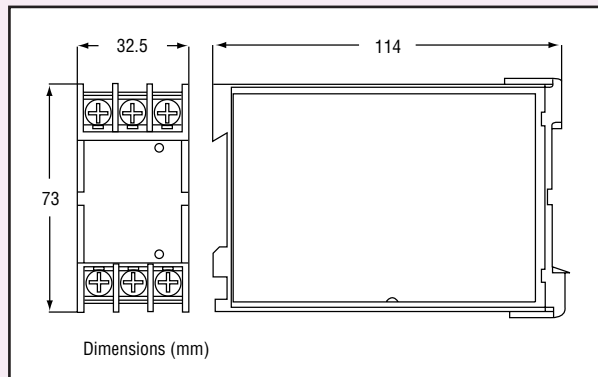
Box to IP50 DIN40050

Terminals to IP10 DIN40050

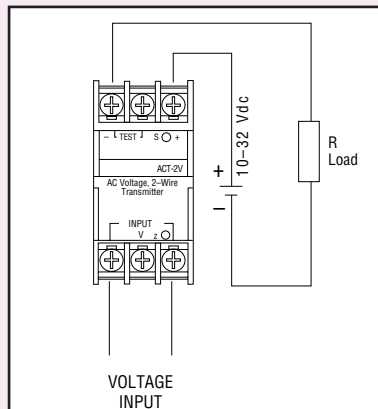
Weight

ACT-2V 200 gms

MECHANICAL DETAILS



TERMINATION DETAILS



ORDERING DETAILS

- (a) Give identification code, i.e. ACT-2V
(b) Give details of input range, i.e. 0 to 240 Volt AC

- (c) Give details of frequency range, i.e. 50 Hz
(d) Please specify if optional Operating Temperature Range required

