

## JUXTA AC CURRENT TRANSDUCERS

### 1) GENERAL

The 2469 and 2489 AC Average Current transducers produce an analog DC signal output corresponding to the average value of the AC input. The true RMS versions always require external power and produce an analog DC output corresponding to the true RMS value of the input signal.

### 2) SPECIFICATIONS

Model #	2469	2489
<b>Input Current</b>	0-1 Amp AC or 0-5 Amp AC	
<b>Input over range capability</b>	200% of rated input continuous 1000% of rated input for 5 seconds	
<b>Input Burden</b>	<0.2VA per element	
<b>Rated outputs</b>	0-1mADC into 10 kΩ max. load; 10VDC output compliance 4-20 mADC into 750Ω max. load; 15VDC output compliance	
<b>Accuracy 10-100% of rated input</b>	0-1mADC=±0.5% of full scale 4-20mADC=±0.5% of span	0-1mADC=±0.2% of full scale 4-20mADC=±0.2% of span
<b>External calibration adjustment</b>	Zero: ±1% minimum(AHD only) Span: ± 2% minimum	Zero: ±5% minimum(AHD only) Span: ± 10% minimum
<b>Response time</b>	<400 milliseconds(0-99% of output)	
<b>Output ripple</b>	0.3% of span peak-to-peak max.	0.5% of span peak-to-peak max.
<b>Isolation</b>	2500 VAC input to output, power and case 2000 VAC aux. power to output and case (AHD and TRMS) 500 VAC output to case	
<b>Surge Withstand Capability</b>	IEEE472/ANSI C37.90.1 - 1989, JIS C1111(5KV, 1.2 x 50 microseconds)	
<b>Insulation resistance</b>	>10 megohm / 500VDC input/output/power/case	
<b>Operating temperature</b>	-20°C to +60°C	
<b>Operating humidity</b>	0 - 90% relative humidity (non-condensing)	
<b>Temperature effect</b>	± 250 PPM / °C of span	± 140 PPM / °C of span
<b>External magnetic field</b>	< 0.2% at 400 AT/m	
<b>Input frequency range</b>	50 - 500 Hz < 0.2% effect on accuracy	
<b>Influence of frequency</b>	< 0.2%, 45-65 Hz, fundamental through 9th harmonic (TRMS models only)	
<b>Weight</b>	TRMS = 900g, 0-1mA = 358g, 4-20mA = 897g, 3 in 1 = 1100g	
<b>Shock</b>	< 0.2% after 50G, 3 Axis and 6 repetitions	
<b>Vibration</b>	< 0.2% after 16.7 Hz, 4 mmp-p 1 hour, 3 Axis	
<b>UL Recognition</b>	File # E60579	

### 3) STANDARD MODELS

0-5 Amp AC, 60 HZ input	2469 (0.5% Accuracy)	2489 (0.2% Accuracy)
AVG./0-1 mA output / self powered	246921-380-AFA-0	248921-380-AFA-0
TRMS / 0-1mA output / 120V aux. power	246931-380-AFA-1	248931-380-AFA-1
AVG./4-20mA output / 120V aux. power	246921-380-AHD-1	248921-380-AHD-1
TRMS / 4-20mA / 120V aux. power	246931-380-AHD-1	248931-380-AHD-1
3 in 1 / 0-1mA output / self-powered	246923-380-AFA-0	248923-380-AFA-0

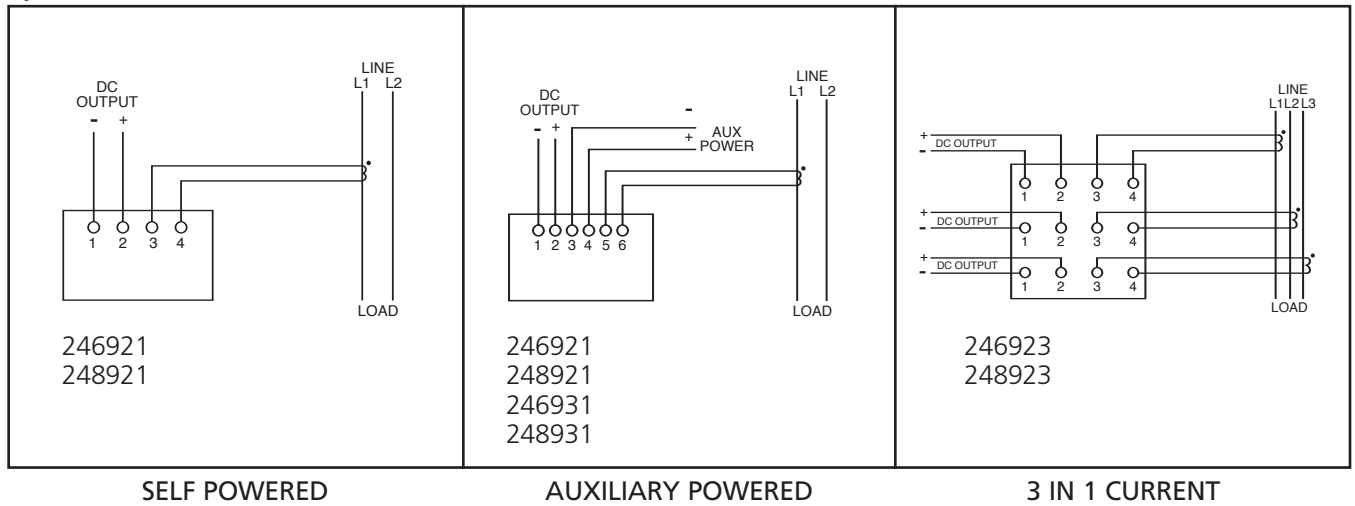
NOTE: See order format on next page for additional ratings, frequency calibrations, power-up and output options.  
Auxiliary power supply options <5.0 VA burden.

## JUXTA AC CURRENT TRANSDUCERS

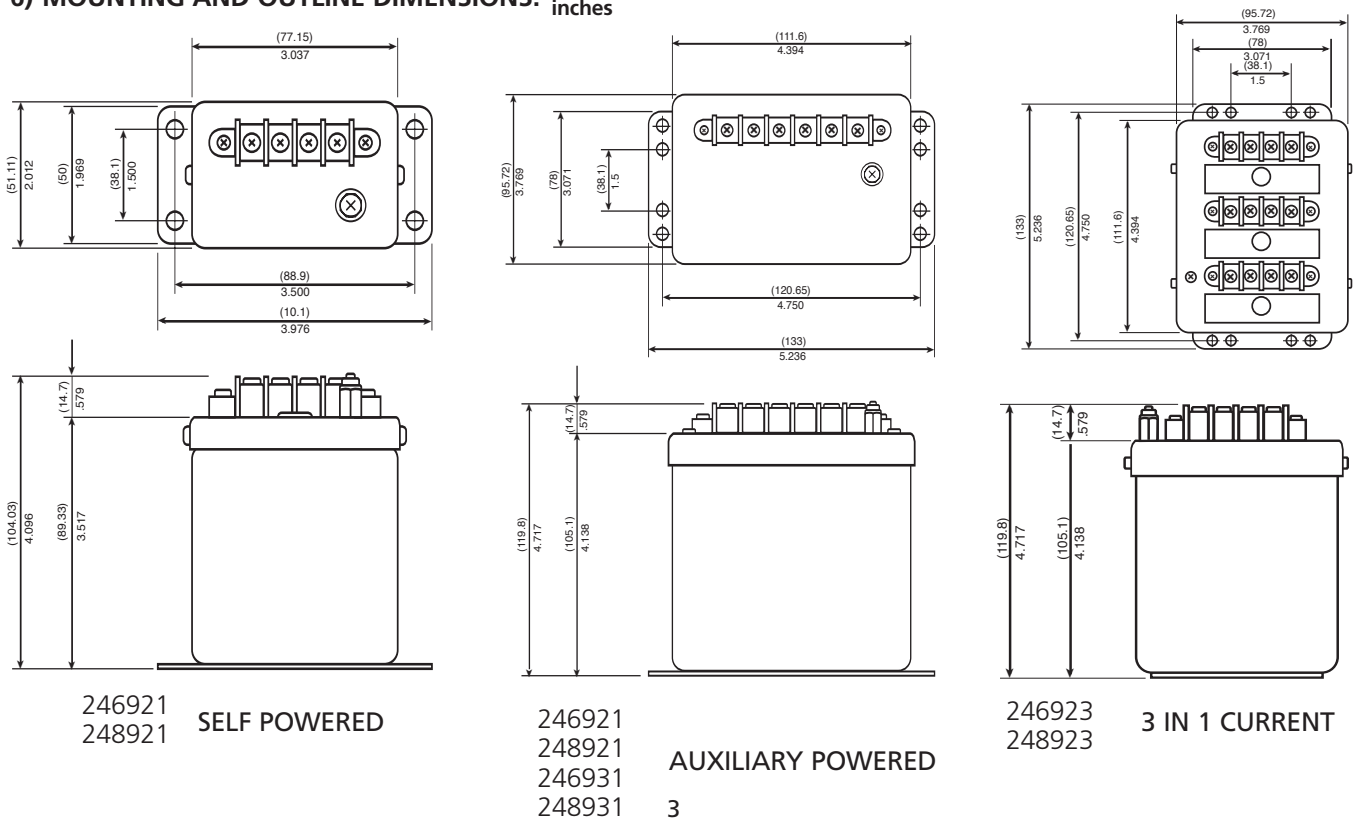
4) ORDER FORMAT 2469 / 89    -          -   

Model#	(1) Transducer function	(2) Input	(3) Input frequency	(4) Output	(5) Aux. power
2469	21 Average current	37 0-1 Amp AC	0 60 Hz	AFA 0-1 mADC (21 & 23 only)	0 Input powered
2489	23 3 in 1 Avg. current	38 0-5 Amp AC	1 50 Hz	AFA 0-1 mADC (TRMS only) AHD 4-20 mADC (21 & 31 only)	1 85-135 VAC 2 170-264 VAC
	31 True RMS current		2 50/60 Hz		
			4 400 Hz		
			5 Other		

### 5) CONNECTION DIAGRAMS FOR CT INPUT



### 6) MOUNTING AND OUTLINE DIMENSIONS: (mm) inches



JUXTA AC VOLTAGE TRANSDUCERS

**1) GENERAL**

The 2469 and 2489 AC Average Voltage transducers produce an analog DC signal output corresponding to the average value of the AC input. The true RMS versions always require external power and produce an analog DC output corresponding to the true RMS value of the input signal.

**2) SPECIFICATIONS**

Model #	2469	2489
<b>Input Voltage</b>	0-150 VAC or 0-300 VAC	
<b>Input over range capability</b>	120% of rated input continuous	
<b>Input Burden (Averaging models)</b>	150 VAC: <1.8VA / element; 300 VAC: <3.6VA / element	
<b>Input Burden (true RMS models)</b>	150 VAC: <0.8VA; 300 VAC: <1.6VA	
<b>Rated outputs</b>	0-1mADC into 10 kΩmax. load; 10VDC output compliance 4-20 mADC into 750Ω max. load; 15VDC output compliance	
<b>Accuracy 10-100% of rated input</b>	0-1mADC=±0.5% of full scale 4-20mADC=±0.5% of span	0-1mADC=±0.2% of full scale 4-20mADC=±0.2% of span
<b>External calibration adjustment</b>	Zero: ±1% minimum(AHD only) Span: ±2% minimum	Zero: ±5% minimum(AHD only) Span: ±10% minimum
<b>Response time</b>	<400 milliseconds(0-99% of output)	
<b>Output ripple</b>	0.3% of span peak-to-peak max.	0.5% of span peak-to-peak max.
<b>Isolation</b>	2500 VAC input to output, power and case 2000 VAC aux. power to output and case(AHD + TRMS) 500 VAC output to case	
<b>Surge Withstand Capability</b>	IEEE472/ANSI C37.90.1 - 1989, JIS C1111(5KV 1.2 x 50 microseconds)	
<b>Insulation resistance</b>	>10 megohm / 500VDC input/output/power/case	
<b>Operating temperature</b>	-20°C to +60°C	
<b>Operating humidity</b>	0 - 90% relative humidity (non-condensing)	
<b>Temperature drift</b>	± 250 PPM / °C of span	± 140 PPM / °C of span
<b>External magnetic field</b>	< 0.2% at 400 AT/m	
<b>Input frequency range</b>	50 - 500 Hz < 0.2% effect on accuracy	
<b>Influence of frequency</b>	< 0.2%, 45-65 Hz, fundamental through 9th harmonic (TRMS models only)	
<b>Weight</b>	TRMS = 900g, 0-1mA = 358g, 4-20mA = 897g, 3 in 1 = 1100g	
<b>Shock</b>	< 0.2% after 50G, 3 Axis and 6 repetitions	
<b>Vibration</b>	< 0.2% after 16.7 Hz, 4 mmp-p 1 hour, 3Axis	
<b>UL Recognition</b>	File # E60579	

**3) STANDARD MODELS**

0-150 VAC, 60 HZ input	2469 (0.5% Accuracy)	2489 (0.2% Accuracy)
AVG./0-1 mA / self powered TRMS / 0-1mA / 120V aux. power AVG./4-20mA / 120V aux. power TRMS / 4-20mA / 120V aux. power 3 in 1 / 0-1mA output / self-powered	246922-330-AFA-0 246932-330-AFA-1 246922-330-AHD-1 246932-330-AHD-1 246924-330-AFA-0	248922-330-AFA-0 248932-330-AFA-1 248922-330-AHD-1 248932-330-AHD-1 248924-330-AFA-0

NOTE: See order format on next page for additional ratings, frequency calibrations, power-up and output options. Auxiliary power supply options <5.0 VA burden.

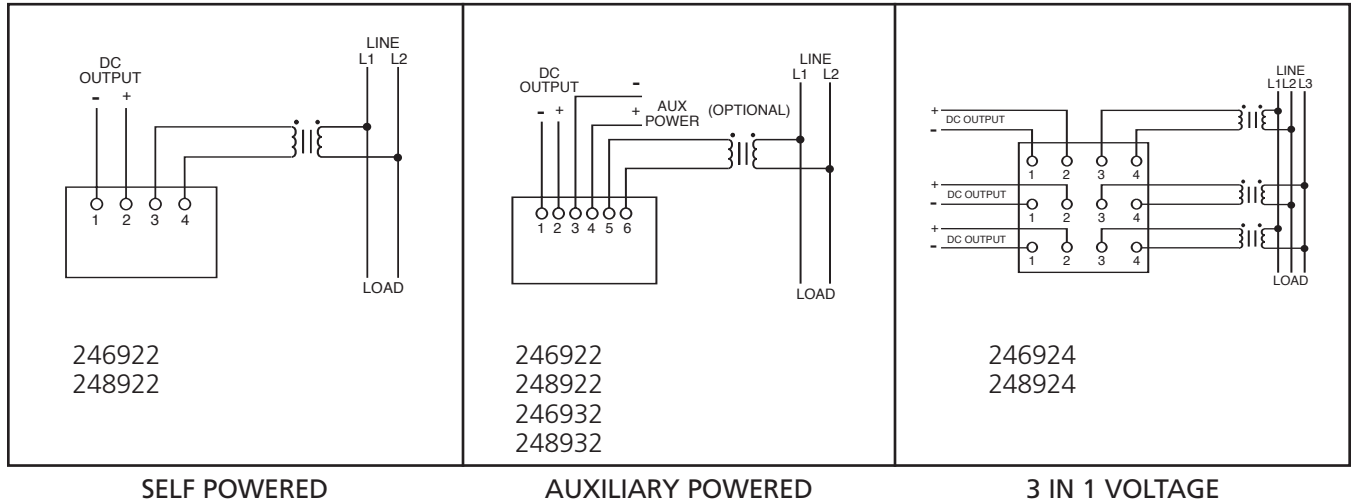
## JUXTA AC VOLTAGE TRANSDUCERS

4) ORDER FORMAT 2469 / 89   -   |   |   |   |  

Model#	(1) Transducer function	(2) Input	(3) Input frequency	(4) Output	(5) Aux. power*
2469	<span style="background-color: #0056b3; color: white; padding: 2px;">22</span> Average Voltage	<span style="background-color: #0056b3; color: white; padding: 2px;">33</span> 0-150 VAC	<span style="background-color: #0056b3; color: white; padding: 2px;">0</span> 60 Hz	<span style="background-color: #0056b3; color: white; padding: 2px;">AFA</span> 0-1 mADC (22 & 24 only)	<span style="background-color: #0056b3; color: white; padding: 2px;">0</span> Input powered
2489	<span style="background-color: #0056b3; color: white; padding: 2px;">24</span> 3 in 1 Avg. Voltage	<span style="background-color: #0056b3; color: white; padding: 2px;">36</span> 0-300 VAC	<span style="background-color: #0056b3; color: white; padding: 2px;">1</span> 50 Hz	<span style="background-color: #0056b3; color: white; padding: 2px;">AFA</span> 0-1 mADC (TRMS only)	<span style="background-color: #0056b3; color: white; padding: 2px;">1</span> 85-135 VAC
	<span style="background-color: #0056b3; color: white; padding: 2px;">32</span> True RMS Voltage		<span style="background-color: #0056b3; color: white; padding: 2px;">2</span> 50/60 Hz		
			<span style="background-color: #0056b3; color: white; padding: 2px;">4</span> 400 Hz	<span style="background-color: #0056b3; color: white; padding: 2px;">AHD</span> 4-20 mADC (22 & 32 only)	<span style="background-color: #0056b3; color: white; padding: 2px;">2</span> 170-264 VAC
			<span style="background-color: #0056b3; color: white; padding: 2px;">5</span> Other		

\*Contact Factory  
For Other Power  
Supply Options

### 5) CONNECTION DIAGRAMS FOR PT INPUT



### 6) MOUNTING AND OUTLINE DIMENSIONS: (mm) inches

