

## AC Voltage Sensor CYVS11A-xnM0

The voltage sensor **CYVS11A-xnM0** adopts special isolation module to measure AC voltage in grid and circuit in real time and convert it to DC output signals. It has the characteristics of high precision, high isolation, low power consumption, low drift, wide temperature range, strong anti-interference ability, wide working power supply range, etc. This product adopts snap-in structure, terminal wiring, easy installation, triple isolation between input, output and power supply, suitable for power supply equipment, power network monitoring, automation system, industrial monitoring system, railroad signal system, etc.

### Specifications

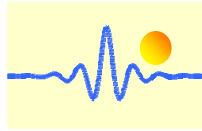
Rated input voltage (U <sub>x</sub> )	10V-1000V AC		
Linear measuring range	0 - 1.2 times of rated input voltage		
Overload capacity	2 times of rated input voltage		
Frequency of input voltage	25Hz.~ 3kHz		
Input resistance	$R_i=U_x \times 1k\Omega/V$ for $U_x \geq 10V$ , $R_i=U_x \times 10k\Omega/V$ for $U_x < 10V$ , U <sub>x</sub> : input voltage		
Output signals DC	0-5V, 0-10V, 0-20mA, 4-20mA DC		
Measuring accuracy	0.2%		
Load capacity	voltage output: 5mA; current output: 6V (300Ω)		
Response time	≤300ms		
Thermal drift	Voltage output: 150ppm/°C; current output: 250ppm/°C		
Static power consumption	0.6W	full power consumption	0.9W
Power supply	+9 ~ +36VDC		
Isolation	Isolation between input and output and power supply		
Isolation withstanding voltage	2.5 kV DC, 1min for Input-Output and power supply – Input 2.5kV DC, 1min for power supply - output		
Operating temperature	-25°C ~ +70°C		
Storage temperature	-40°C ~ + 85°C		
Relative humidity	10% ~ 90%		
Output ripple	10mV (Effective value, when the output load is 250Ω)		
Electromagnetic compatibility:	Surge: 2kV 1.2/50μs, Electrostatic discharge: 6KV/8KV Electric Fast transient pulse Group: ±2kV		
Material of Case	ABS (According to UL94V-0)		
Mounting	DIN Rail	Case Style	M0 without aperture
MTBF	50000h	Safe Standard	IEC61010, 2001
Protection of Case	IP20	Unit weight	100g

### Definition of Part number:

CYVS11A	-	x	n	M0	-	0.2	-	m
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(1)                      (2)   (3)   (4)                      (5)                      (6)

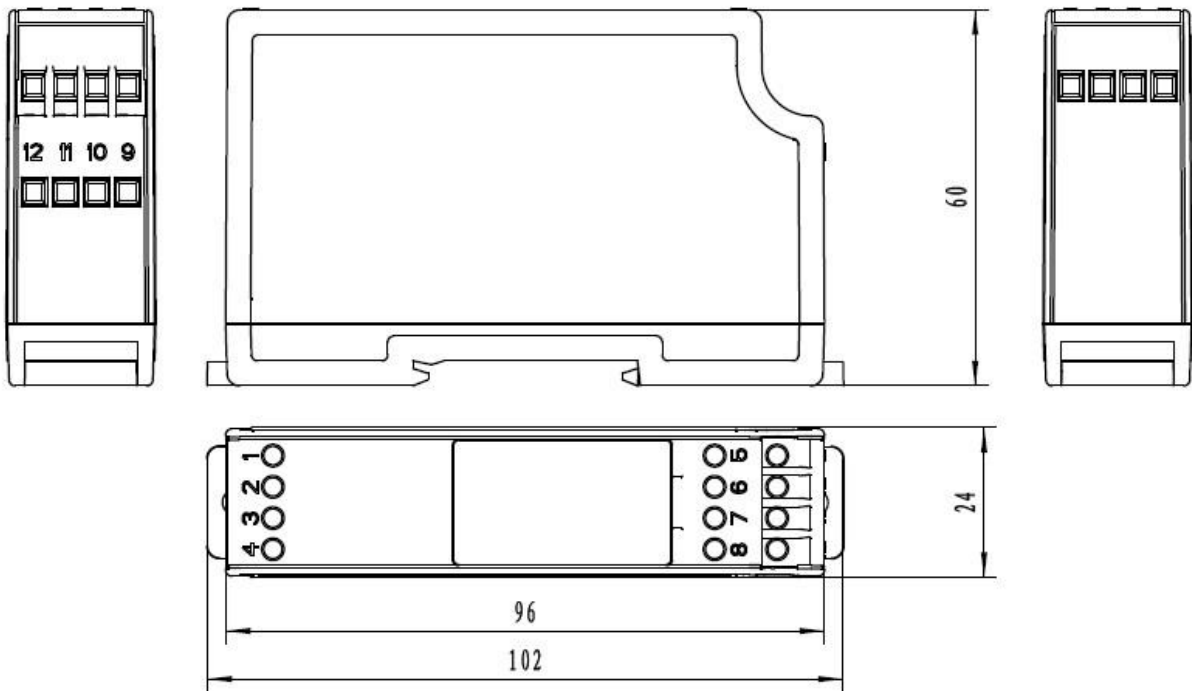
(1)	(2)	(3)	(4)	(5)	(6)
Series name	Output signal	Power supply	Case style	Accuracy class	Input Voltage range (m)
CYVS11A	<b>x=3:</b> 0-5V DC <b>x=4:</b> 0-20mA DC <b>x=5:</b> 4-20mA DC <b>x=8:</b> 0-10V DC	<b>n=7:</b> +9 ~+36VDC	M0	0.2%	m=10V-1000V AC



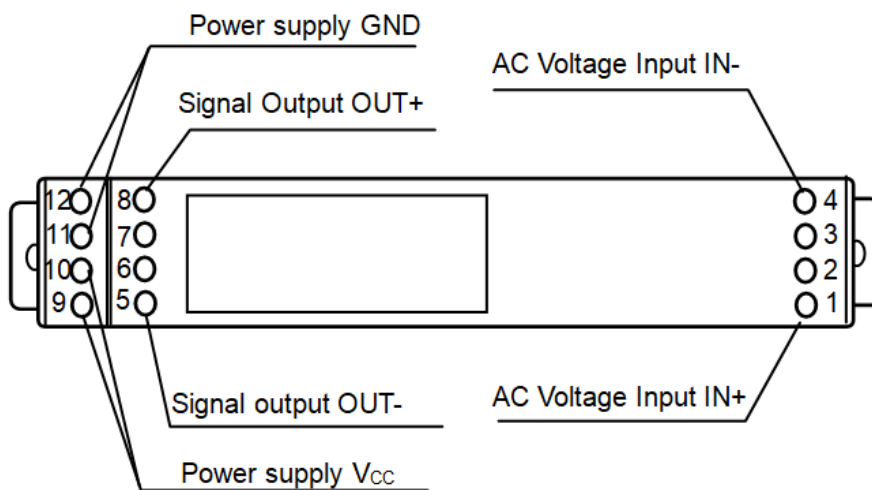
**Example 1:** CYVS11A-37M0-0.2-100V, AC voltage sensor with  
Output signal: 0-5V DC  
Power supply: +9 ~ +36VDC  
Rated input voltage: 0-100V AC

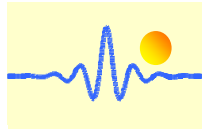
**Example 2:** CYVS11A-57M0-0.2-100V, AC voltage sensor with  
Output signal: 4-20mA DC  
Power supply: +9 ~ +36VDC  
Rated input voltage: 0 -100V AC

**DIMENSIONS (mm)**



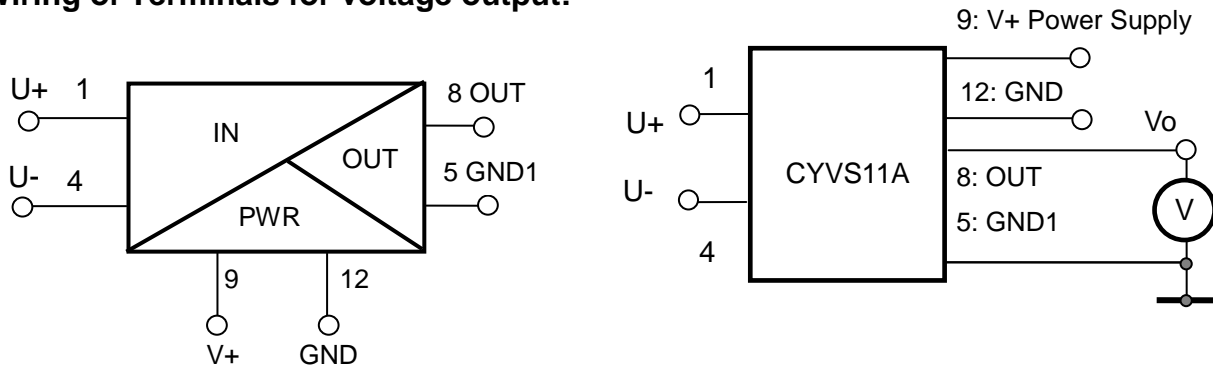
Dimensions: 102mm x 24mm x 60mm





## CONNECTIONS

### Wiring of Terminals for voltage output:

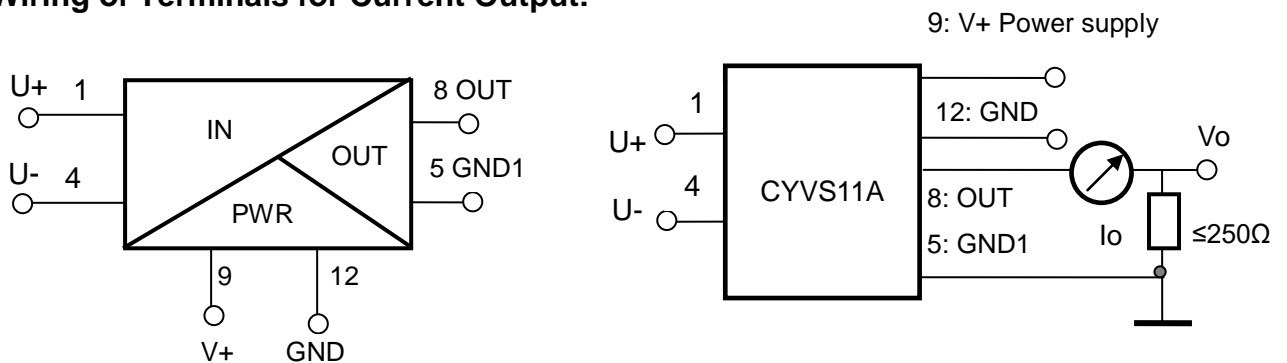


1,4: Input Voltage;      9: Power Supply      5,12: GND      8: Voltage output

### Relation between Input and Output:

Sensor CYVS11A-37M0-0.2-100V	
Input Voltage (V)	Output voltage (V)
0	0
25	1.25
50	2.5
75	3.75
100	5

### Wiring of Terminals for Current Output:



1,4: Input Voltage;      9: Power Supply      5,12: GND      8: Current output

### Relation between Input and Output (for $R_m=250 \Omega$ ):

Sensor CYVS11A-57M0-0.2-100V		
Input Voltage (V)	Output current $I_o$ (mA)	Output voltage $V_o$ (V)
0	4	1
25	8	2
50	12	3
75	16	4
100	20	5