



## AC Voltage Sensor CYVS11-xnU0

The **CYVS11-xnU0** AC voltage sensor/transducer works according to Electromagnetic Induction and is designed for applications to measurement and monitoring of AC voltage. The output signal (DC voltage or current) of this transducer is proportional to the input AC voltage. They are suitable for measurements and long time monitoring of AC voltages and can be applied to power supply management, AC motor drivers, battery chargers and systems etc.

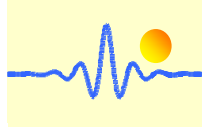
### Specifications

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	Typ. 50Hz, 60Hz, max. 5kHz
Input resistance	$R = U_x \times 1k\Omega / V$ , U <sub>x</sub> : input voltage
Output signals DC	Tracing voltage 5VAC, 0-5VDC, 0-10VDC, 0-20mADC, 4-20mA DC
Measuring accuracy	0.1% for tracing voltage output; 0.2% for DC voltage output; 0.5% for DC current output
Load capacity	voltage output: 5mA; current output: 6V
Response time	15μs for tracing voltage output ; 300ms for DC output
Thermal drift	voltage output : 50-80ppm/°C; current output: 300ppm/°C
Power supply	±12VDC, ±15VDC, +12VDC, +24VDC
Static current	Voltage output: 10mA; Current output: 13-17mA
Isolation	Isolation between input and output, power supply at the output
Isolation withstanding voltage	2.5 kV DC, 1min
Operating temperature	-10°C ~ +60°C
Storage temperature	-25°C ~ +70°C
Relative humidity	10% ~ 90%
Protection of Case	IP20
Material of Case	ABS (According to UL94V-0)
Mounting	DIN Rail
Case Style	U0 without aperture
MTBF	50000h
Unit weight	90g

### Definition of Part number:

CYVS11	-	x	n	U0	-	0.2	-	m
(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)
CYVS11	<b>x=1:</b> 5VAC tracing**	<b>n=5:</b> ±12V DC <b>n=6:</b> ±15V DC	U0	0.2% 0.5%	m=10V-1000V AC
	<b>x=3:</b> 0-5V DC	<b>n=2:</b> +12V DC			
	<b>x=4:</b> 0-20mA DC	<b>n=4:</b> +24V DC			
	<b>x=5:</b> 4-20mA DC				
	<b>x=8:</b> 0-10V DC	<b>n=4:</b> +24V DC			

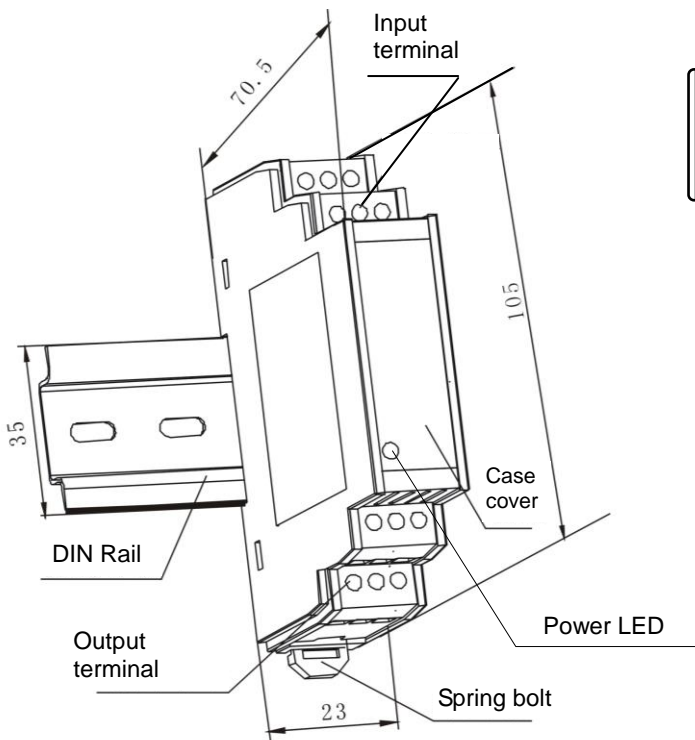


**Example 1:** CYVS11-32U0-0.2-100V, AC voltage sensor with  
Output signal: 0-5V DC  
Power supply: +12V DC  
Rated input voltage: 0-100V AC

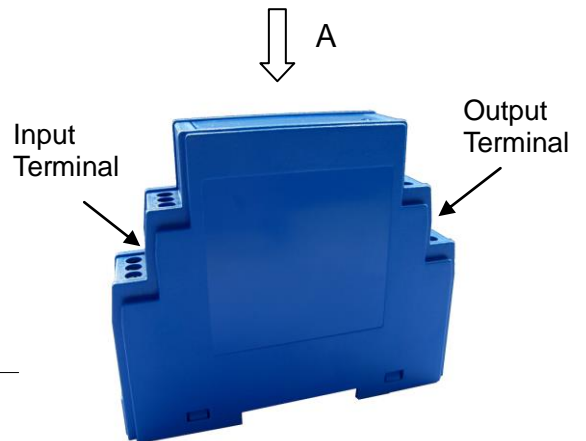
**Example 2:** CYVS11-35U0-0.1-100V, AC voltage sensor with  
Output signal: 0-5V AC  
Power supply:  $\pm 12$ V DC  
Rated input voltage: 0-100V AC

**Example 3:** CYVS11-54U0-0.5-100V, AC voltage sensor with  
Output signal: 4-20mA DC  
Power supply: +24V DC  
Rated input voltage: 0 -100V AC

### DIMENSIONS (mm)



View of A Direction

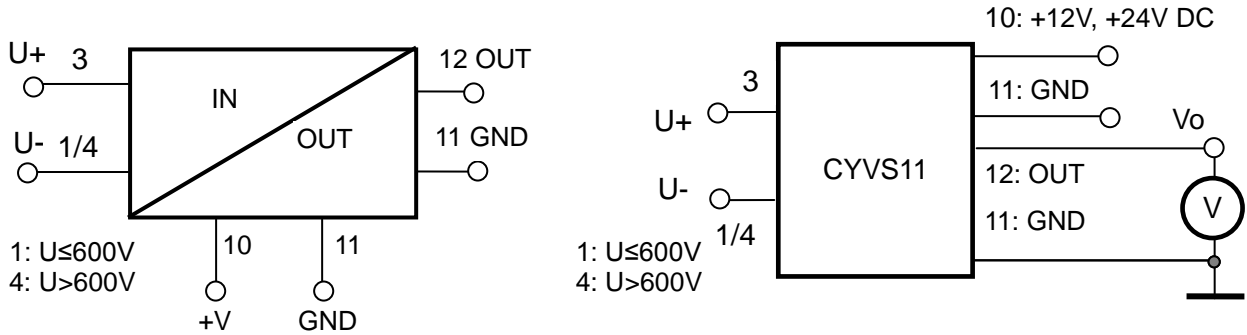


Dimensions: 105mm x 23mm x 70.5mm



## CONNECTIONS

### Wiring of Terminals for voltage output:

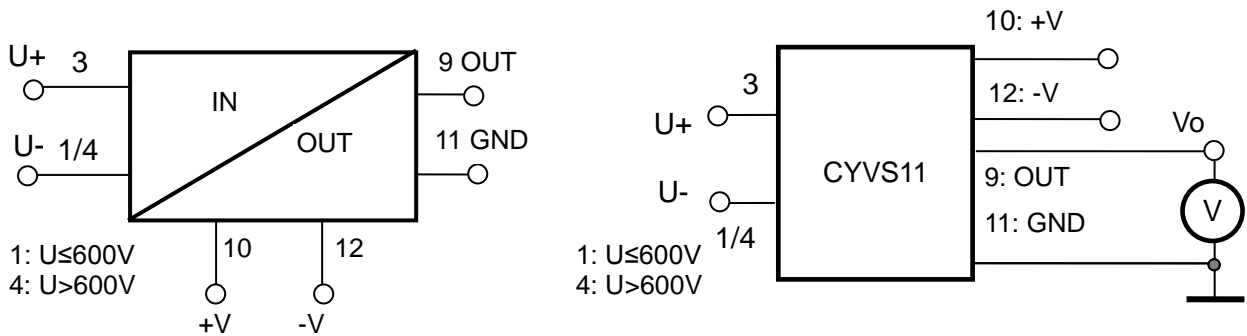


1/4,3: Input Voltage; 10: +12V, +24V Power Supply      11: GND      12: Voltage output

### Relation between Input and Output:

Sensor CYVS11-32U0-0.2-100V	
Input Voltage (V)	Output voltage (V)
0	0
25	1.25
50	2.5
75	3.75
100	5

### Wiring of Terminals for tracing voltage output:



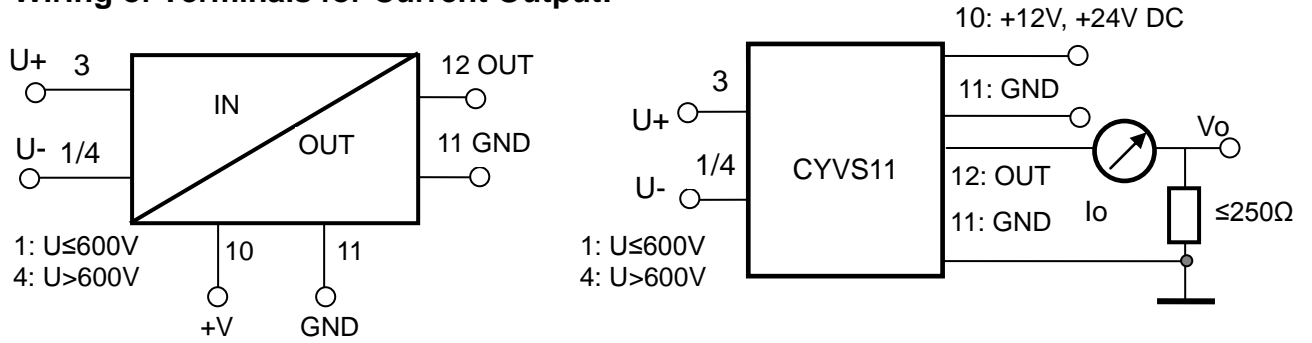
1/4,3: Input Voltage; 10, 12: Power Supply      11: GND      9: Voltage output

### Relation between Input and Output:

Sensor CYVS11-32U0-0.2-100V	
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:**



1/4,3: Input Voltage; 10: +12V, +24V Power Supply      11: GND      12: Current output

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

Sensor CYVS11-54U0-0.5-100V		
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