

## AC Voltage Sensor CYVS11A-xnU0

The **CYVS11A-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

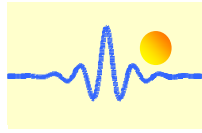
Rated input voltage (U <sub>x</sub> )	10V-1000V AC
Linear measuring range	0 - 1.2 times of rated input voltage
Overload capacity	2 times of rated input voltage
Frequency of input voltage	Typ. 50Hz, 60Hz, max. 5kHz
Input resistance	$R_i = U_x \times 10k\Omega/V$ , $U_x$ : input voltage
Output signals DC	0-5V, 0-10V, 0-20mA, 4-20mA DC
Measuring accuracy	0.5%
Load capacity	voltage output: 5mA; current output: 6V
Response time	≤350ms
Thermal drift	350ppm/°C
Power supply	165-265VAC, +230-360VDC
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	-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:

CYVS11A	-	x	n	U0	-	0.5	-	m
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(1)                      (2)    (3)    (4)                      (5)                      (6)

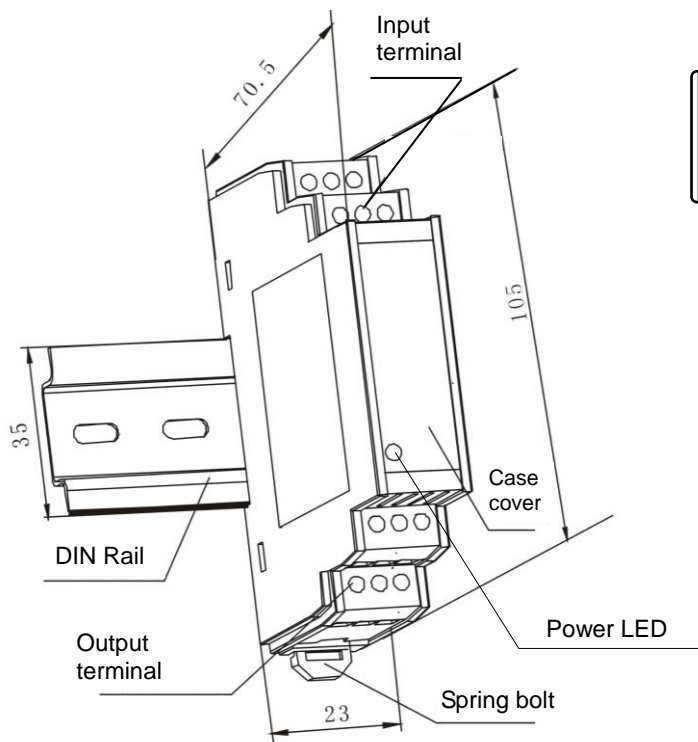
(1)	(2)	(3)	(4)	(5)	(6)
Series name	Output signal	Power supply	Case style	Accuracy class	Input Voltage range (m)
CYVS11A	<b>x=1:</b> 0-5VAC <b>x=3:</b> 0-5V DC <b>x=4:</b> 0-20mA DC <b>x=5:</b> 4-20mA DC <b>x=8:</b> 0-10V DC	<b>n=8:</b> 165V-265VAC <b>n=9:</b> 230-360VDC	U0	0.5%	m=10V-1000V AC



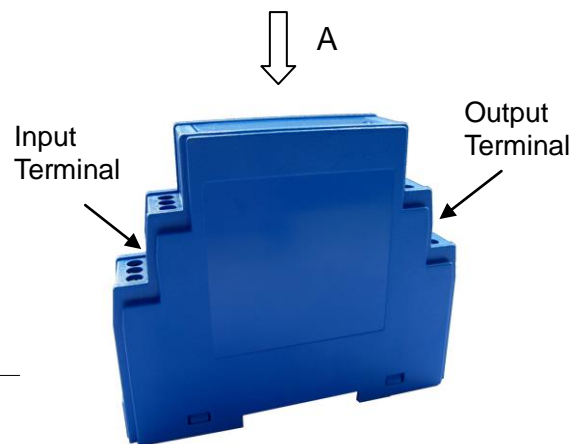
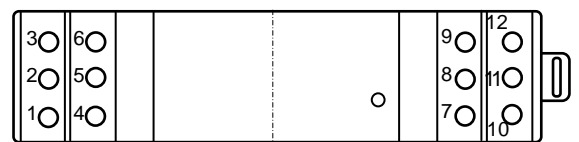
**Example 1:** CYVS11A-38U0-0.2-100V, AC voltage sensor with  
Output signal: 0-5V DC  
Power supply: 165-265V AC  
Rated input voltage: 0-100V AC

**Example 2:** CYVS11A-58U0-0.5-100V, AC voltage sensor with  
Output signal: 4-20mA DC  
Power supply: 165-265V AC  
Rated input voltage: 0 -100V AC

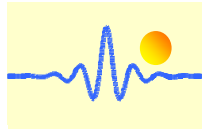
### DIMENSIONS (mm)



View of A Direction

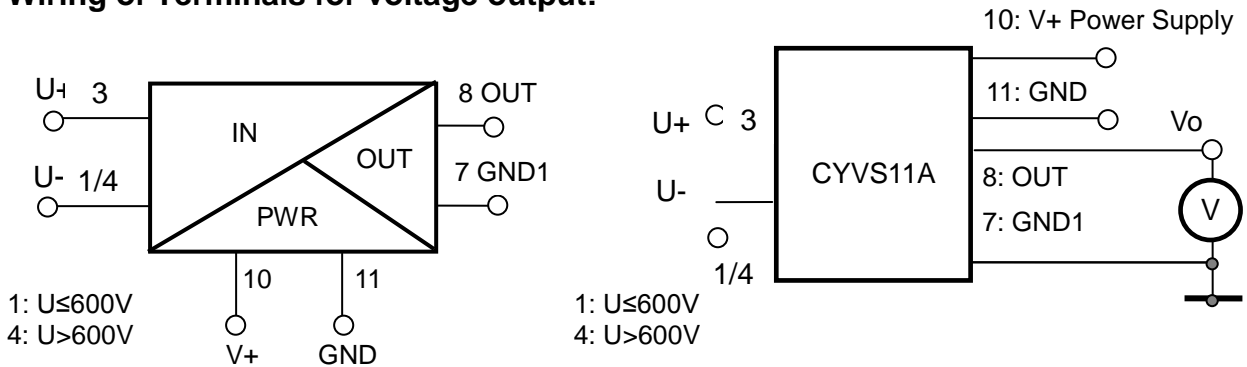


Dimensions: 105mm x 23mm x 70.5mm



## CONNECTIONS

### Wiring of Terminals for voltage output:

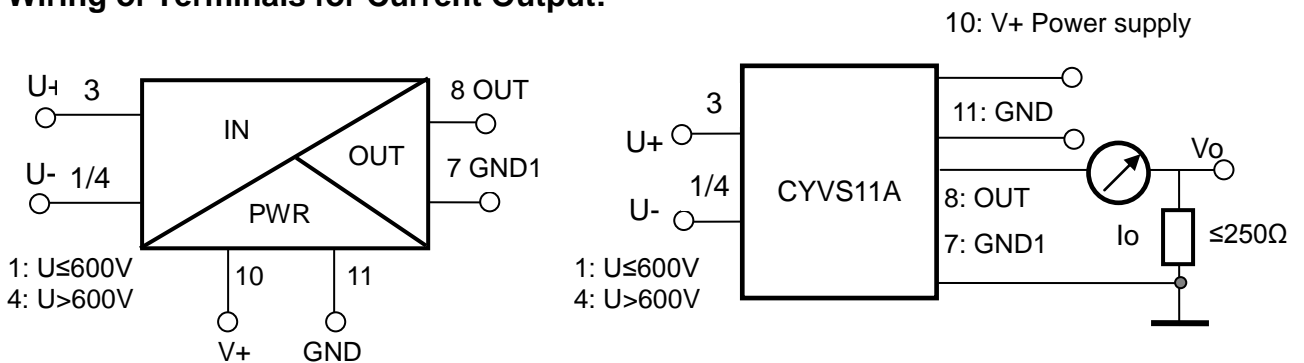


1/4,3: Input Voltage; 10, 11: Power Supply 7: GND 8: Voltage output

### Relation between Input and Output:

Sensor CYVS11A-38U0-0.5-100V	
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, 11: Power Supply 7: GND 8: current output

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

Sensor CYVS11A-58U0-0.5-100V		
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