

AC Voltage Sensor CYVS11-xnS3

The **CYVS11-xnS3** AC Voltage Sensor/Transducer works according electro-magnetic induction and is designed for applications to measurement and monitoring of single phase AC voltage. The output signal (DC voltage or current) of this transducer is proportional to the average effective value (RMS) of input AC voltage. They are suitable for general applications such as fixed frequency voltage supplies etc.

Specifications

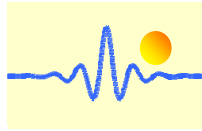
Rated input voltage range	10V, 50V ,100V, 110V, 220V, 250V, 380V, 400V, 500V, 1000V
Frequency of input voltage	Typ. 50Hz, 60Hz, max. 5kHz
Output signal	5V (tracing), 0-5VDC, 0-20 mA, 4-20 mA, 0-10V DC
Power supply	+12V, +15V, +24V DC, 110V DC/AC, 220V DC/AC
Measuring accuracy	0.5%
Isolation	between input, output and power supply
Input resistance	>1kΩ/V
Load resistance	≥2kΩ for voltage output, ≤250Ω for current output
Isolation withstanding voltage	2.5 kV DC, 1min, leakage current 1mA
Operating temperature	-10°C ~ +60°C
Storage temperature	-25°C ~ + 70°C
Relative humidity	10% ~ 90%
Response time	≤300ms
Overload capacity	2 times
Quiescent power consumption	180mW – 250mW
Mounting	Din rail
Case style	S3 without aperture

Definition of Part number:

CYVS11	-	x	n	S3	-	0.5	-	m
(1)		(2)	(3)	(4)		(5)		(6)

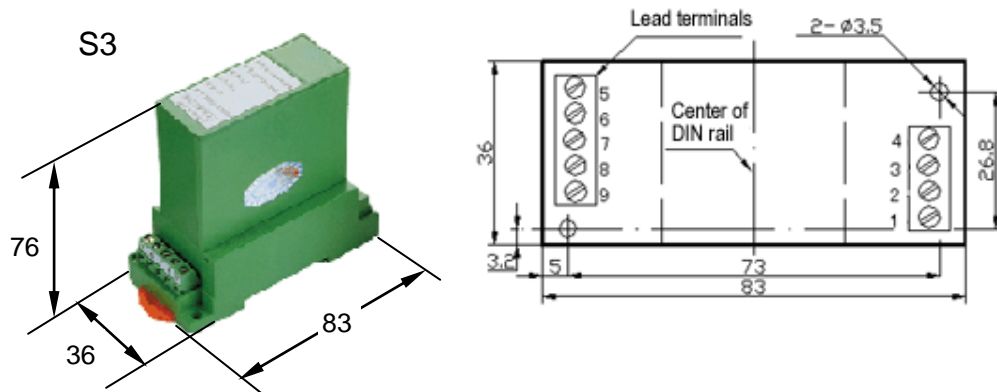
(1)	(2)	(3)	(4)	(5)	(6)
Series name	Output signal	Power supply	Case style	Accuracy class	Input voltage range (m)
CYVS11	x=1: 5V (Vp, tracing) x=3: 0-5V DC x=4: 0-20mA DC x=5: 4-20mA DC x=8: 0-10V DC	n=2: +12V DC n=3: +15V DC n=4: +24V DC n=8: 110V n=9: 220V	S3	0.5%	10V, 50V, 100V, 110V, 220V, 250V, 380V, 400V, 500V, 1000V

Example 1: CYVS11-32S3-0.5-100V, Single Phase AC Voltage sensor with
 Output signal: 0-5V DC
 Power supply: +12V DC
 Rated input voltage: 100V AC/RMS



Example 2: CYVS11-54S3-0.5-100V, Single Phase AC Voltage sensor with
 Output signal: 4-20mA DC
 Power supply: +24V DC
 Rated input voltage: 100V AC/RMS

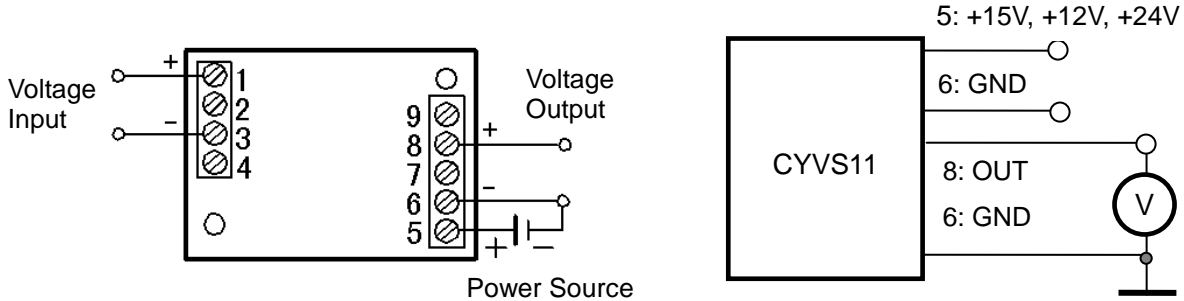
DIMENSIONS (mm)



Dimensions: 76mm x 83mm x 36mm

CONNECTIONS

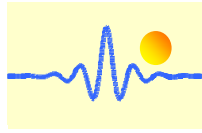
Wiring of Terminals for voltage output:



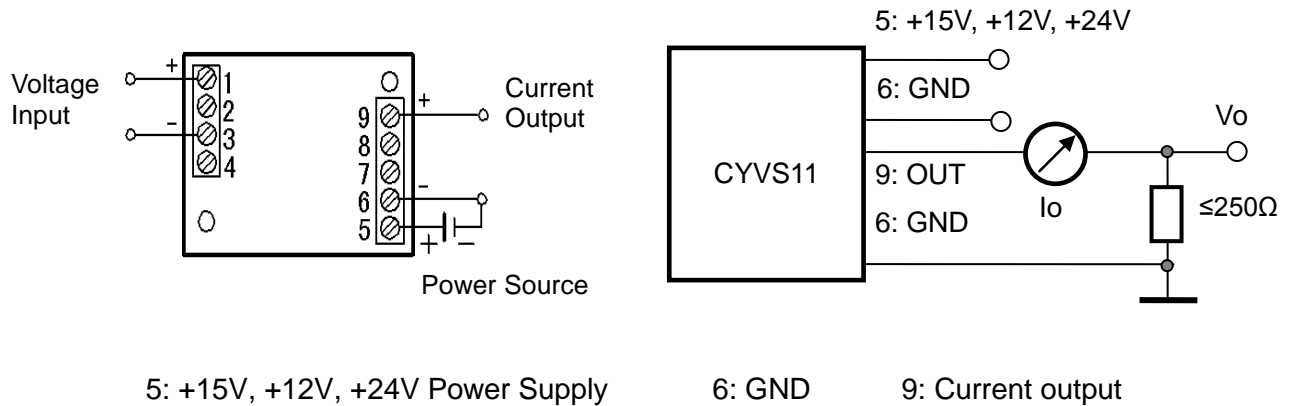
5: +15V, +12V, +24V Power Supply 6: GND 8: Voltage output

Relation between Input and Output:

Sensor CYVS11-32S3-0.5-100V	
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:



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

Sensor CYVS11-54S2-0.5-100V		
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

Application:

- Monitor for over/under voltage
- Power monitoring
- Multi-point instrumentation needs
- Sense phase loss

Notice:

- Selection of output signal: Please select power source >12V at 0~10V output.
- Make sure that the polarities are in right connection. The output and the power supply must be common grounded at terminal 6.
- If a meter is used to calibrate the output of the transducer, please make sure that the accuracy of the meter is higher than the transducer.