ChenYang
Technologies GmbH & Co. KG

AC Voltage Sensor CYVS11-xnS2

The **CYVS11-xnS2** AC Voltage Sensor/Transducer works according to 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, 0-20mA, 4-20mA, 0-10V DC
Power supply	+12V, +15V, +24V DC
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	≤120ms
Overload capacity	2 times
Quiescent power consumption	180mW – 250mW
Mounting	Din rail
Case style	S2 without aperture
Mean Time Between Failures (MTBF)	50k - 100k hours

Definition of Part number:

CYVS11	-	x	n	S2	-	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 (Vpp, 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	S2	0.5%	10V, 50V, 100V, 110V, 220V, 250V, 380V, 400V, 500V, 1000V

Example 1: CYVS11-32S2-0.5-100V, Single Phase AC Voltage sensor with
Output signal: 0-5V DC
Power supply: +12V DC
Rated input voltage: 100V AC/RMS

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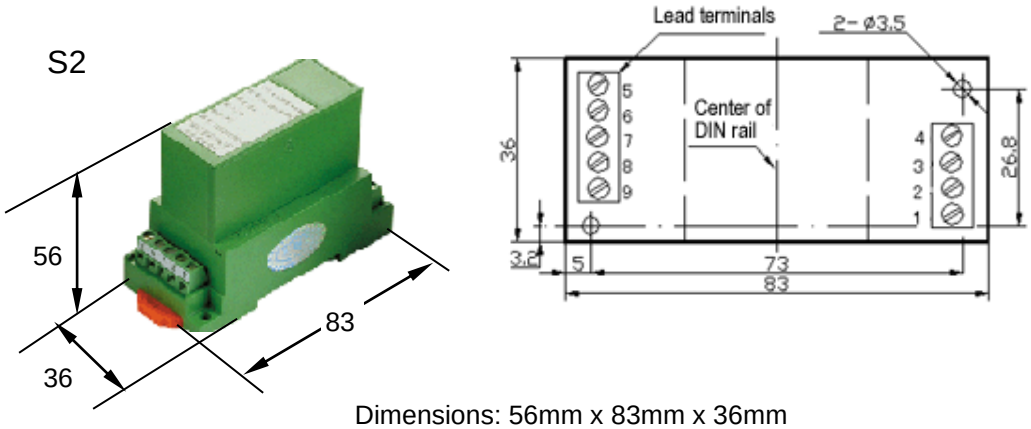
Example 2: CYVS11-54S2-0.5-100V, Single Phase AC Voltage sensor with
Output signal: 4-20mA DC
Power supply: +24V DC
Rated input voltage: 100V AC/RMS

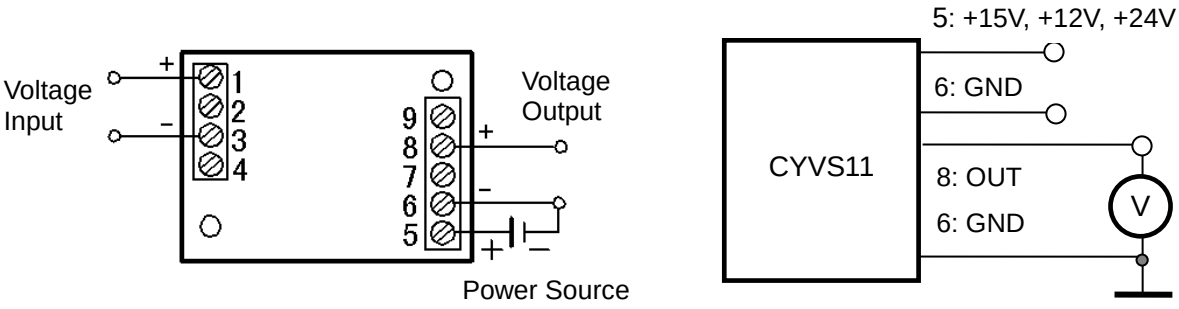
DIMENSIONS (mm)



Dimensions: 56mm x 83mm x 36mm

CONEECTIONS

Wiring of Terminals for voltage output:



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

Relation between Input and Output:

Sensor CYVS11-32S2-0.5-100V	
Input Voltage (V)	Output voltage (V)
0	0
25	1.25
50	2.5
75	3.75
100	5

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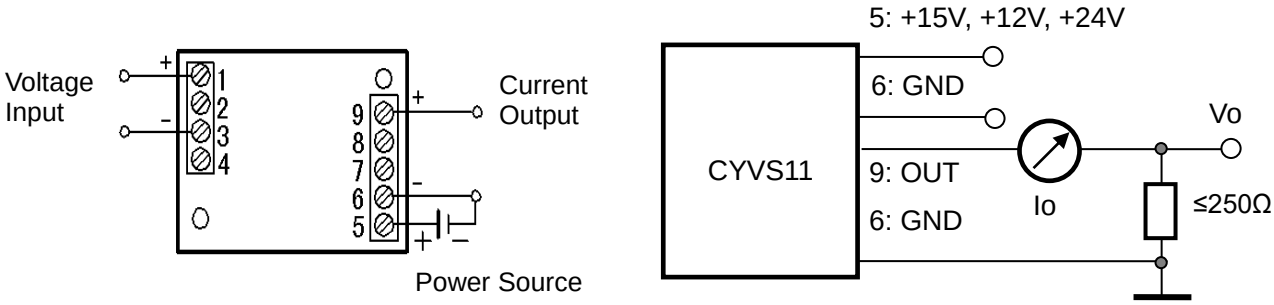
Wiring of Terminals for Current Output:



5: +15V, +12V, +24V Power Supply 6: GND 9: Current output

Relation between Input and Output (for R_m=250 Ω):

Sensor CYVS11-54S2-0.5-100V		
Input Voltage (V)	Output current Io(mA)	Output voltage Vo (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.

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