



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 |
| 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 |
| 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) |

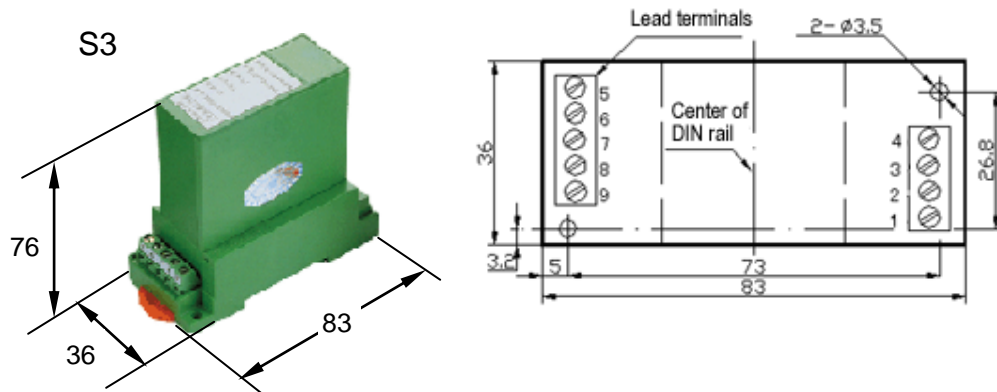
| (1) | (2) | (3) | (4) | (5) | (6) |
|-------------|---|---|------------|----------------|---|
| Series name | Output signal | Power supply | Case style | Accuracy class | Input voltage range (m) |
| CYVS11 | x=1: 5V (Vp, tracing) x=3: 0-5V DC x=4: 0-20mA DC x=5: 4-20mA DC x=8: 0-10V DC | n=2: +12V 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

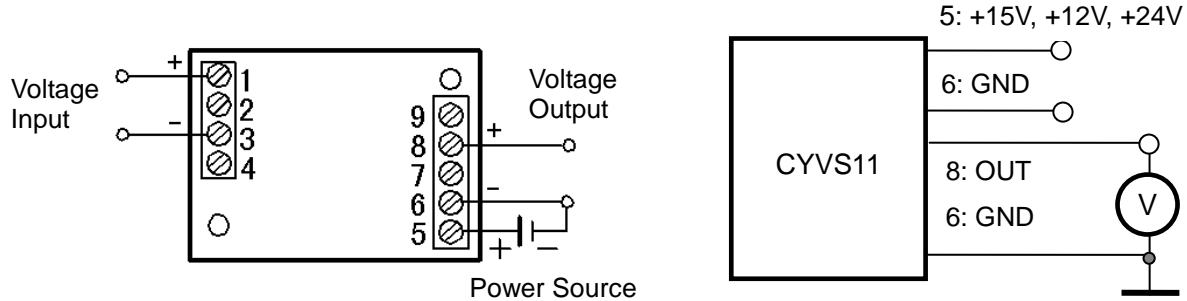
DIMENSIONS (mm)



Dimensions: 76mm x 83mm x 36mm

CONNECTIONS

Wiring of Terminals for voltage output:



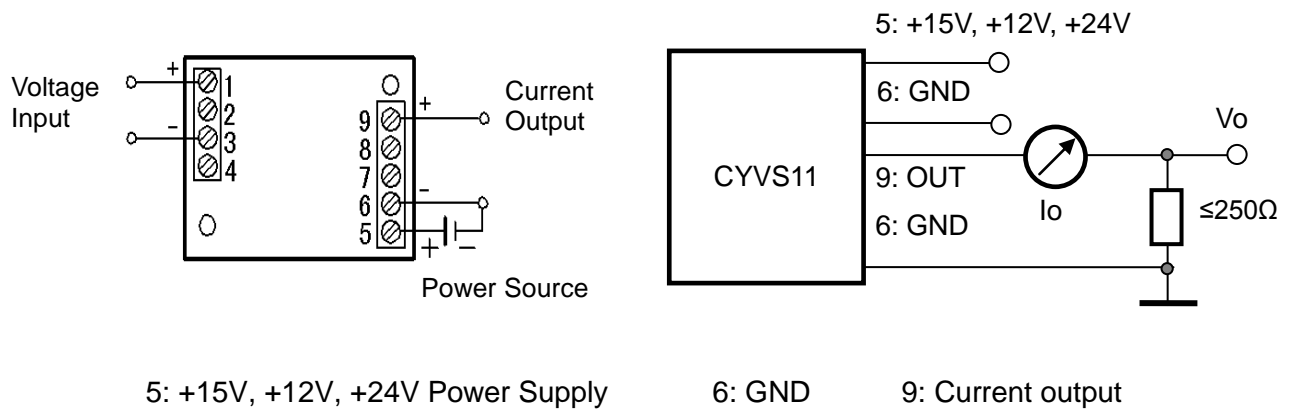
5: +15V, +12V, +24V Power Supply 6: GND 8: Voltage output

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.