DC Voltage Sensor CYVT02-xnS1

The **CYVT02-xnS1** DC voltage sensor/transducer works according Electromagnetic Induction and is designed for applications to measurement and monitoring of DC voltage. The output signal (DC voltage or current) of this transducer is proportional to the input DC voltage. They are suitable for measurements and long time monitoring of DC voltages and can applied to power supply management, DC motor drivers, battery chargers and systems etc.

Specifications

Rated input voltage	10mV, 50mV, 75mV, 75V, 100V, 200V, 500V
Output signal	0-5VDC, 0-20 mA, 4-20 mA, 1-5V DC, 0-10V DC, frequency OC
Power supply	+12V, +15V, +24V DC
Measuring accuracy	0.2%, 0.5%
Isolation (three-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 ~ +70°C
Storage temperature	-45°C ~ + 85°C
Relative humidity	10% ~ 90%
Response time	≤400ms
Overload capacity	2 times
Quiescent power consumption	200mW – 300mW
Mounting	Din rail
Case style	S1 without aperture

Definition of Part number:

CYVT02	-	x	n	S1	-	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	Rated Input voltage (m)
CYVT02	**x=3:** 0-5V DC **x=4:** 0-20mA DC **x=5:** 4-20mA DC **x=6:** 1-5V DC **x=8:** 0-10V DC **x=F:** Frequency OC**	n**=2:** +12V DC n**=3:** +15V DC n**=4:** +24V DC	S1	0.2% 0.5%	10mV, 50mV, 75mV, 75V, 100V, 200V, 500V

** Frequency range: 10kHz, accuracy: 0.5%, response time is longer than those given in the table above

Typical Sample: CYVT02-32S1-0.2/100V, DC Voltage sensor with
Output signal: 0-5V DC
Power supply: +12V DC
Rated input voltage: 0-100V DC

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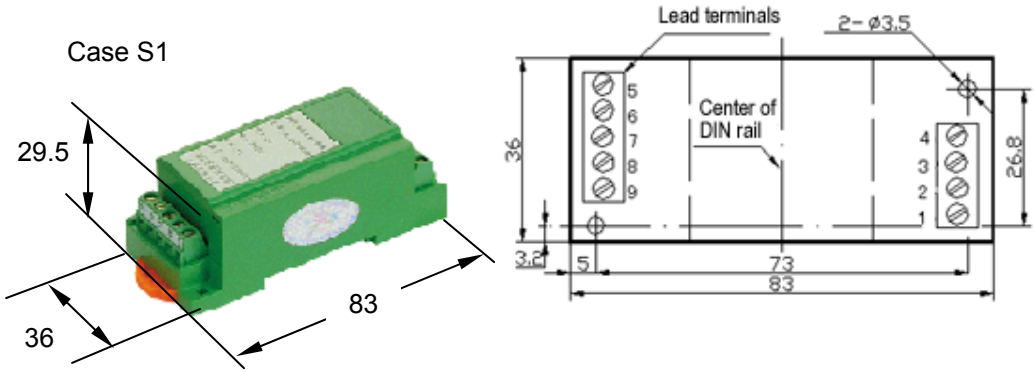
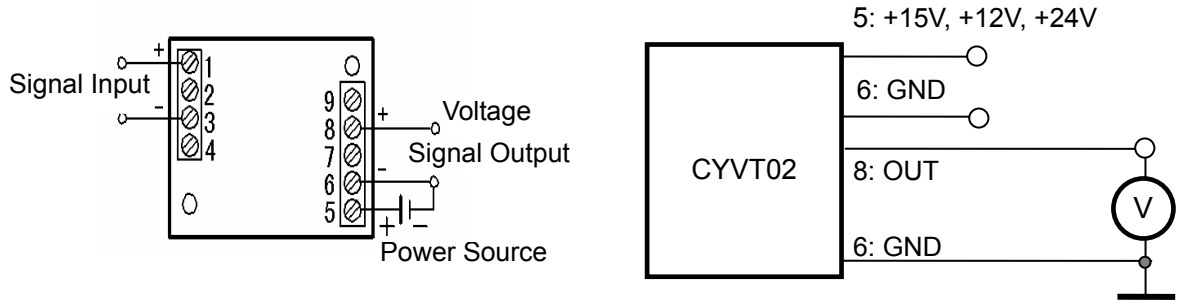
DIMENSIONS (mm)



Dimensions: 29.5mm x 83mm x 36mm

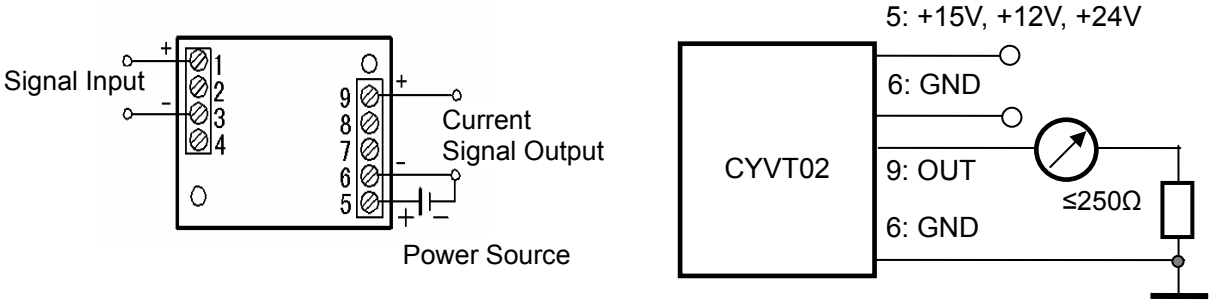
CONEECTIONS

Wiring of Terminals for voltage output:



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

Wiring of Terminals for Current Output:



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

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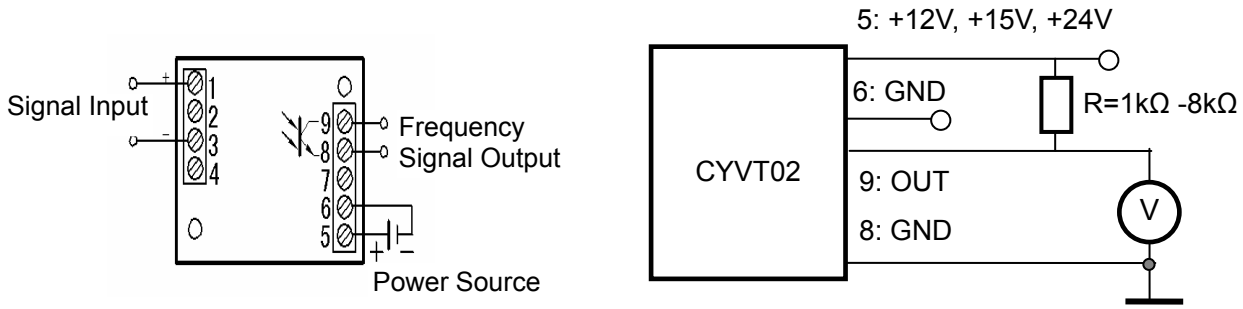
Wiring of Terminals for OC Frequency Output:



The value of the pull-up resistor R should be selected in order to get a current of 4-5mA flowing through the pull-up resistor. For instance the pull-up resistor is 24V/4.5mA=5.3kΩ if you use a power supply +24VDC.

- Recommended value of the pull-up resistor R

Power supply	+12V	+15V	+24V
Pull-up resistor R	2.6kΩ	3.3kΩ	5.3kΩ

Applications:

- Mobile applications.
- Power supply over /under sensing
- Battery chargers and systems
- Power sensing

Notice:

- If the input signal is bi-directional DC or pulse DC, please give a remark in your order.
- The output and the power supply must be common grounded at terminal 6.

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