

Hall Effect Voltage Sensor CYHVS500T

CYHVS500T is a Hall Effect Voltage sensor, which is based on Hall Effect and magnetic compensation principle. This sensor can be used for measuring DC and AC voltage with different wave forms. It has high electric isolation.

Features

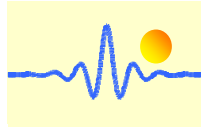
- High electrical isolation
- High reliability
- Good overload capability
- Small sizes
- Insulated plastic case recognized according to UL94-V0

Applications

- Switched Mode Power Supplies
- Uninterruptible power supplies (UPS)
- Overvoltage protection
- Feedback of control systems
- Electric power network monitoring
- AC frequency conversion servo-motors
- Various power supplies

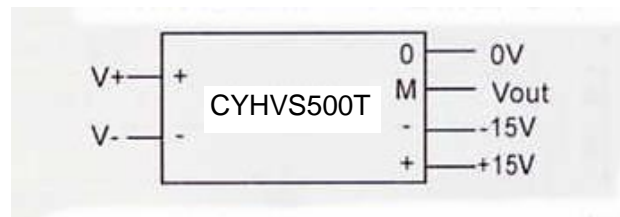
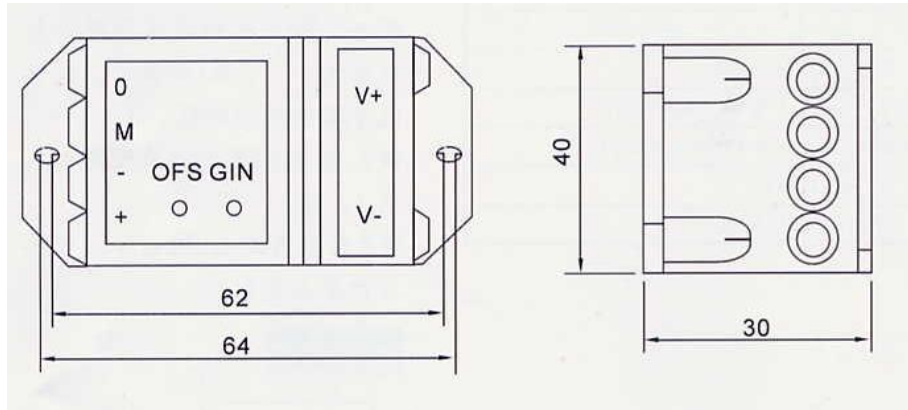
Electrical Parameters

Parameters	Part number				
	CYHVS100T	CYHVS200T	CYHVS300T	CYHVS400T	CYHVS500T
Rated input voltage (V_N)	100V	200V	300V	400V	500V
Linear measuring range (V_{in})	0~150V	0~300V	0~450V	0~600V	0~750V
Rated output voltage V_{ON}	4V or 5V				
Power supply (V_c)	$\pm 12V \sim \pm 15V (\pm 5\%)$				
Offset voltage (V_{os})	$\leq \pm 40mV$				
Thermal drift of V_{os}	$\leq \pm 1mV/^{\circ}C$				
Linearity (ϵ_L)	$\leq \pm 1.0\% FS$				
Response time (t_r)	$\leq 40\mu s$				
Isolation voltage (V_d)	2.5kV/50Hz/1min				
Frequency band width (f_b)	DC~ 10kHz (-3dB)				
Current consumption (I_c)	< 25mA				
Measuring accuracy (X_G)	< $\pm 1.0\% FS$ (Full Scale)				
Ambient Operating Temperature (T_A)	$-10^{\circ}C \sim +70^{\circ}C$				
Ambient Storage Temperature (T_S)	$-25^{\circ}C \sim +85^{\circ}C$				



Case Style and Connection

CYHVS500T



"V+" Input +
"+" Power supply +
"O" GND

"V-" Input –
"–" Power supply –
"M" Output

Application Note

- 1) The sensor is connected according to the figure shown above. The output voltage can be detected at the output terminal M when the measuring voltage is applied to the input terminal of the sensor. (Note: the sensor can be damaged by a incorrect connection)
- 2) OFS: adjustment of DC zero point;
GIN: adjustment of the gain (amplitude of the output voltage)