



SENSOR Module CHV-*KV

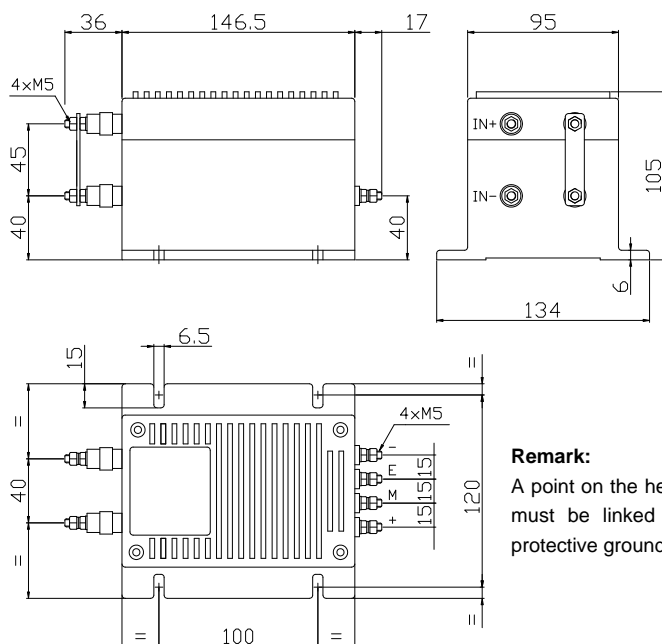
$V_N = 1...5KV$

Specifications: Closed loop Hall voltage sensor, Nominal voltage 1000...5000V RMS for measuring of voltage: AC, DC, pulsed

Type	CHV-1KV	CHV-2KV	CHV-3KV	CHV-4KV	CHV-5KV	
V_N	Nominal voltage (RMS)	1000V	2000V	3000V	4000V	5000V
V_P	Measuring range	0...±1500V	0...±3000V	0...±4500V	0...±6000V	0...±7500V
K_N	Turns ratio	20000:2000	40000:2000	80000:2000	160000:2000	160000:2000
R_M	Measuring resistance	R_M min		R_M max		
	($V_C = ±15V$)	30Ω (at V_N or V_P)		65Ω (at V_N or V_P)		
	($V_C = ±24V$)	60Ω (at V_N or V_P)		125Ω (at V_N or V_P)		
I_M	Output current	Nominal output current 80mA, for primary nominal voltage V_N				
X	Accuracy	$V_N ± 0.5%$ ($T_a = +25°C$)				
V_C	Supply voltage	±15...24V (±5%)				
V_i	Isolation voltage	Between primary and secondary circuit: 10KV RMS/50Hz/1min.				
I_{off}	Offset current	±0.3mA max, for primary voltage $V_N = 0$ ($T_a = +25°C$)				
T_d	Temperature drift	I_M of 0.05%/°C (-25°C...+70°C)				
L	Linearity	0.1%				
T_r	Response time	500μS				
f	Frequency bandwidth				
T_a	Operating temperature	-25°C...+70°C				
T_s	Storage temperature	-40°C...+85°C				
I_C	Current consumption	80mA+ I_M (Measuring current)				
R_s	Secondary resistance	36Ω ($T_a = +70°C$)				
R_N	Primary resistance	85KΩ+R1 (Build in resistor) ($T_a = +70°C$)				
W	Weight	2Kg				

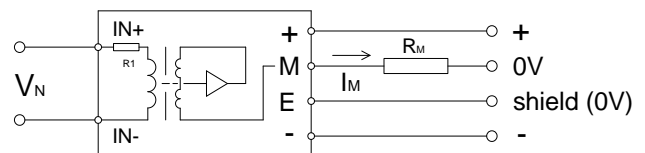
Dimensions (mm):

Tolerance: ±1mm



Remark:
A point on the heat sink must be linked to the protective grounding.

Connection:



Connection:

IN+: input positive voltage
IN-: input negative voltage
*...Nominal voltage

+ : supply voltage +15...24V
M : output
E : shield (0V)
- : supply voltage -15...24V



1. Output I_M is positive when a positive voltage V_N is applied to the terminal IN+.
2. The sensor is directly connected to the primary voltage V_N by the terminals IN+ and IN- (R1 is built into the sensor.)
3. A voltage output V_M is obtained by connecting a resistor R_M between M and 0V.

WeChat

