

HCOL51 Series

For the electronic measurement of currents : DC, AC, pulsed, mixed,
with a galvanic isolation between the primary (high power)
circuit and the secondary (electronic) circuit.



Operating performance (AT =25 °C)

Part No.		HCOL51-500-21	HCOL51-101-21	HCOL51-201-21	HCOL51-301-21	HCOL51-401-21	HCOL51-501-21
Primary nominal r.m.s. current	I_{PN} (A)	50	100	200	300	400	500
Primary current measuring range	I_P (A)	0~±100	0~±200	0~±400	0~±600	0~±800	0~±1000
Supply voltage	V_{CC}	±15V (±5%)					
Output voltage	V_{OUT}	4V ±1% @± I_{PN} , $R_L = 10K\Omega$					
Current consumption	I_C	≤±18mA @ ± I_{PN}					
Offset voltage	V_O	<±20mV @ $I_P=0, T_A=25^\circ C$					
Thermal drift of V_O	V_{OT}	<±0.5mV/°C					
Thermal drift of V_{OUT}	$TC\epsilon_G$	<±0.04%/°C					
Response time	t_r	<5µs					
di/dt accurately followed	di/dt	>50A/µs					
Linearity	ϵ_L	±1% @0~± I_{PN}					
Accuracy	X	±1% @ I_{PN}					
Isolation voltage	V_d	2.5KV @50(60)Hz/1min					
Isolation resistance	R_{IS}	500MΩ @500VDC					
Hysteresis offset voltage	V_{OH}	≤±25mV @±3 $I_{PN} \rightarrow 0$					
Frequency bandwidth	f	0~50KHz					

General data

Operating temperature	T_A	-25 ~ 85 °C
Storage temperature	T_S	-40 ~ 100 °C
Mass	m	75g
Note		Insulated plastic case recognized according to UL 94-V 0

Applications

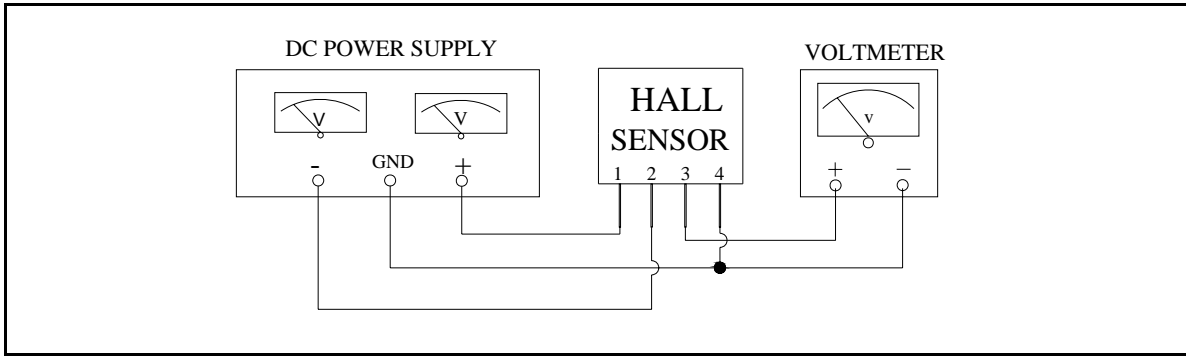
1.AC variable speed drives and servo motor drives	4.Static converters for DC motor drives
2.Battery supplied applications	5.Switched Mode Power Supplies(SMPS)
3.Uninterruptible Power Supplies(UPS)	6.Power supplies for welding applications

Advantages

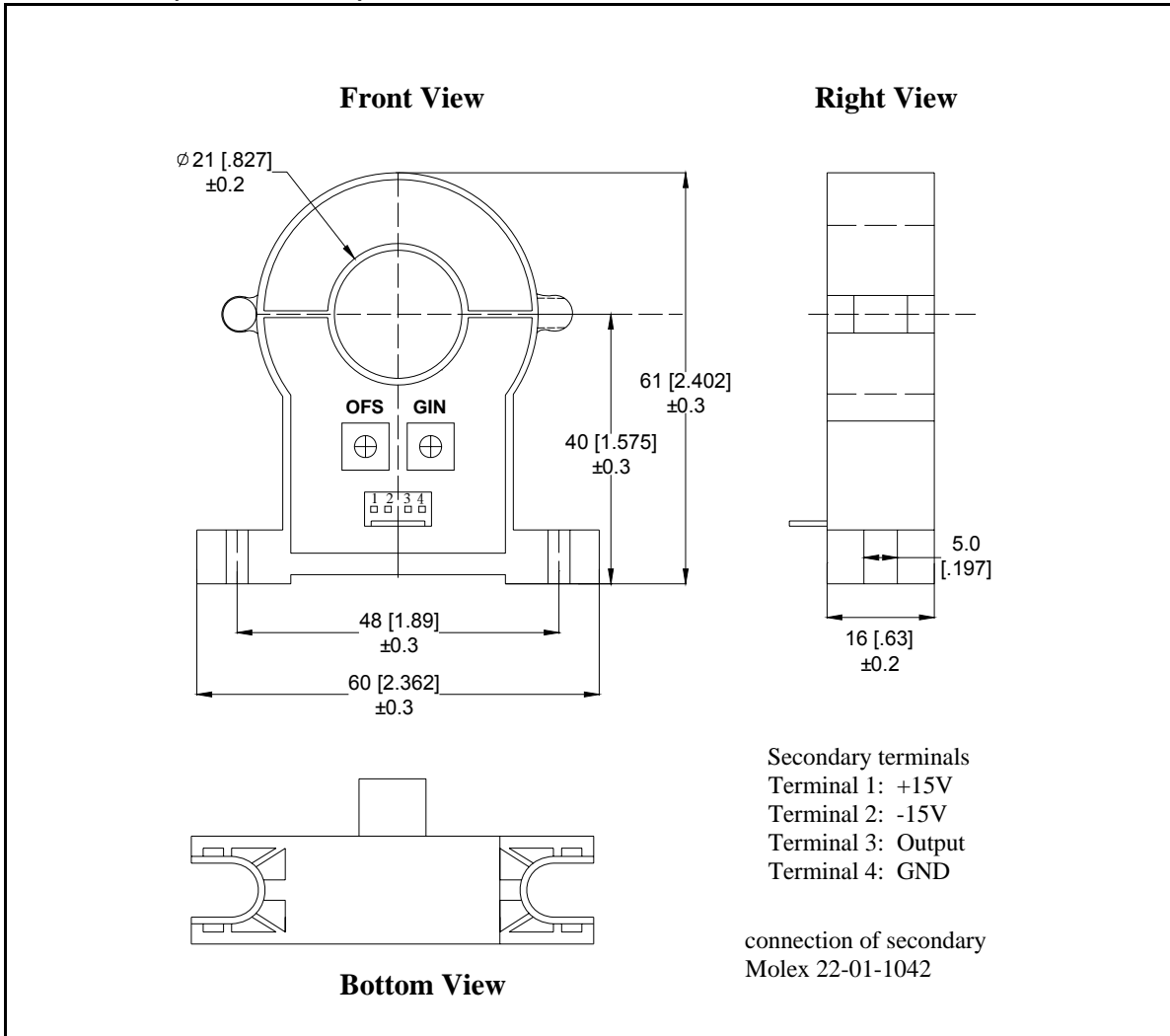
1.Low temperature drift	4.Low power consumption
2.Easy mouting	5.High immunity to external interference
3.Very low insertion losses	6.Current overload capability

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Connection



Dimensions (unit: mm/inch)



Remarks

1. V_{OUT} is positive when I_P flows in the direction of the arrow.
2. Temperature of the primary conductor should not exceed $100^{\circ}C$.
3. These are standard models. For different versions (supply voltages, secondary connections, unidirectional measurements, operating temperatures, etc.) please contact us.