

# CLOSED LOOP HALL EFFECT CURRENT SENSOR

## JP-50/100



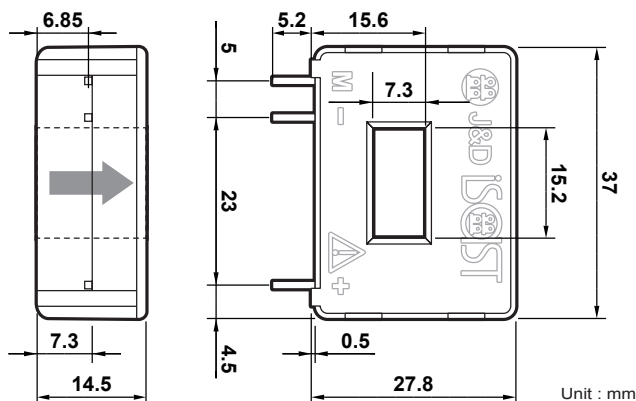
### FEATURES

- Closed loop (compensated) current transducer using the Hall effect
- Printed circuit board mounting
- Insulated plastic case recognized according to UL 94-V0.

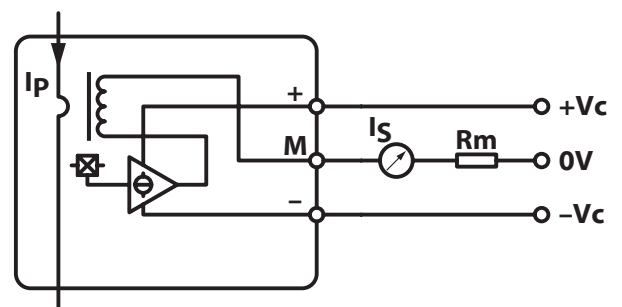
### ELECTRICAL PROPERTIES

Model		JP-50	JP-100
Primary nominal current	$I_f$	50A	100A
Measuring resistance	$R_L$	Vcc=±12V @ ±50A : 60Ω ~ 95Ω @ ±60A : 60Ω Vcc=±15V @ ±50A : 135Ω ~ 155Ω @ ±55A : 135Ω	Vcc=±12V @ ±100A : 0Ω ~ 42Ω @ ±120A : 0Ω ~ 14Ω Vcc=±15V @ ±100A : 20Ω ~ 102Ω @ ±150A : 20Ω ~ 25Ω
Rated output current	$I_o$	50mA (Turn ratio 1 : 1000)	50mA (Turn ratio 1 : 2000)
Output current accuracy	$V$	±0.45 (±15V, +25°C)	±0.65 (±15V, +25°C)
Offset current	$I_{of}$	≤ ±0.1mA (at $I_f=0A$ )	≤ ±0.2mA (at $I_f=0A$ )
Output linearity	$\epsilon_L$	≤ ±0.15%(at $I_f$ )	
Power supply voltage	$V_{cc}$	±12V ±5% ~ ±15V ±5% (Rated output current is restricted by Vcc)	
Response time	$t_r$	≤ 1μS(at $di/dt=I_f/\mu s$ )	
Frequency characteristics	$f$	DC...200kHz (-1 dB)	
Thermal drift of gain	$TCl_o$	≤ ± 0.01%/°C(Without Tclof)	
Thermal drift of offset	$TCl_{of}$	≤ ± 0.5mA	
Hysteresis error	$I_{oH}$	≤ 0.3mA (at $I_f=0A \rightarrow I_f \rightarrow I_f=0A$ )	
Insulation voltage	$V_D$	AC3000V for 1 minute (Sensing current 0.5mA) inside of through hole ⇔ terminal	
Insulation resistance	$R_{is}$	≥500MΩ (at DC500V) inside of through hole ⇔ terminal	
Ambient Operating temperature	$T_A$	-40°C ~ +85°C	
Ambient storage temperature	$T_S$	-40°C ~ +90°C	
Secondary coil resistance	$R_s$	80Ω(@Ta=70°C) 85Ω(@Ta=85°C)	120Ω(@Ta=70°C) 128Ω(@Ta=85°C)

### DIMENSION



### CONNECTION



Unless otherwise specified, tolerances shall be ±0.5mm