



DATA SHEET

Hall Effect Current Sensor

PN: CHK_BS5S2

IPN=50-600A

Feature

- Open-loop
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V

Advantages

- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference
- Can be customized

Applications

- Inverter applications
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Frequency drive control home appliances



RoHS



Electrical data: (Ta=25°C, Vc=+5.0VDC, RL=2KΩ)

Parameter	Ref	CHK50 BS5S2	CHK100 BS5S2	CHK200 BS5S2	CHK300 BS5S2	CHK400 BS5S2	CHK600 BS5S2
Rated input Ipn(A)		50	100	200	300	400	600
Measuring range Ip(A)		0~±50	0~±100	0~±200	0~±300	0~±400	0~±600
Output voltage Vo(V)				2.500±2.0*(IP/IPN)			
Output voltage Vo(V)		@Ip=0,T=25°C			2.500		
Load resistance RL(KΩ)					>2.0		
Supply voltage VC(V)				+5.0 ±5%			
Accuracy XG(%)		@IpN,T=25°C		<±1.0			
		@IpN,T=-40~+85°C comparatively 25°C		<±1.5			
Offset voltage VOE(mV)		@Ip=0,T=25°C		<±25			
Temperature variation of VOE VOT(mV/°C)		@Ip=0,-40 ~ +85°C		<±0.3			
Hysteresis offset voltage VOH(mV)		@Ip=0,after 1*Ipn		<±20			
Linearity error εr(%FS)				<1.0			
Di/dt accurately followed (A/μs)				>100			
Response time tra(μs)		@90% of Ipn		<3.0			
Power consumption IC(mA)				15			



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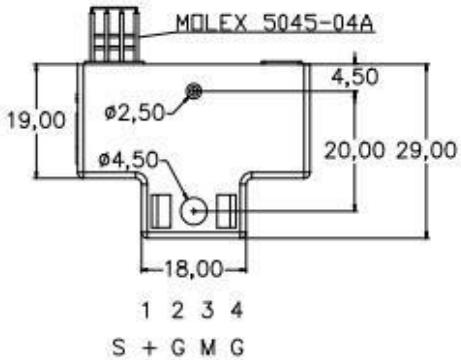
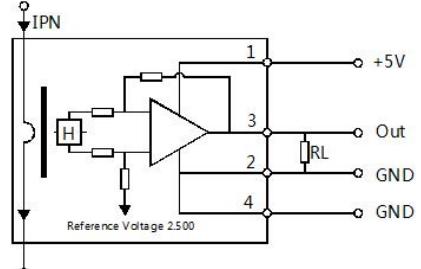
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Bandwidth Bw(KHZ)	@-3dB, I _{PN}	DC-30
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~+125
Mass M(g)	70
Plastic material	PBT G30/G15, UL94- V0; IEC60950-1:2001
Standards	EN50178:1998 SJ20790-2000

Dimensions(mm):

CHK-BS5S2M	CHK-BS5S2U	Connection
		
CHK-BS5S2M	CHK-BS5S2U	General tolerance General tolerance:<±0.5mm Primary through-hole: 10.5*20.5±0.3 Connection of secondary : 2510-04A (instead of the Molex 5045-04A)

Remarks:

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole if fully filled with.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.

