

CURRENT SENSOR

PRODUCT SERIES: SFG-MOD/M3

PRODUCT PART NUMBER: SFG-100MOD/M3

VERSION: Ver 1.5



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1. Description

- Closed loop (compensation) Current Sensor with magnetic field probe
- Printed circuit board mounting

Typical application

- Static converters for DC motor drives
- AC variable speed and servo motor drives
- Battery supplied applications
- Switched model power supplies (SMPS)
- UPS
- Power Supplies for welding applications

General parameters

Parameter	Symbol	Unit	Value
Sensor operating temperature	T_A	$^{\circ}\text{C}$	-40 ~ 105
Storage temperature	T_S	$^{\circ}\text{C}$	-40 ~ 105
Mass	m	g	32

Isolation parameters

Parameter	Symbol	Unit	Value	Remark
Case material	-	-	V0	According to UL 94
Comparative tracking index	CTI		600	
RMS voltage for AC test 50Hz/1 min	U_d	kV	4	Pin 1 – 4 to inner hole

2. Electrical parameters

Parameters	Symbol	Unit	Min	Typ	Max
Primary nominal RMS current	I_{PN}	A		100	
Max measuring range @ $R_M=1.563\ \Omega$	I_{PN}	A	± 160		
Measuring resistance	R_M	Ω	0		200
Secondary nominal output RMS current	I_{SN}	mA		100	
Resistance of secondary winding @ $T_A=85^\circ\text{C}$	R_S	Ω			24
Turns ratio	K_N	NT		1:1000	
Measuring accuracy @ $I_{PN}, T_A=25^\circ\text{C}$	X	%			0.5
Linearity error	ξ_L	% of I_{PN}			0.1
Offset current @ $I_P=0, T_A=-40\dots+85^\circ\text{C}$	$I_0(T)$	mA		0.02	0.1
Hystersis	I_{OH}	mA		0.04	0.1
Response time	t_r	μs			1
Frequency range	f	kHz	DC...100		

3. Dimensions:

