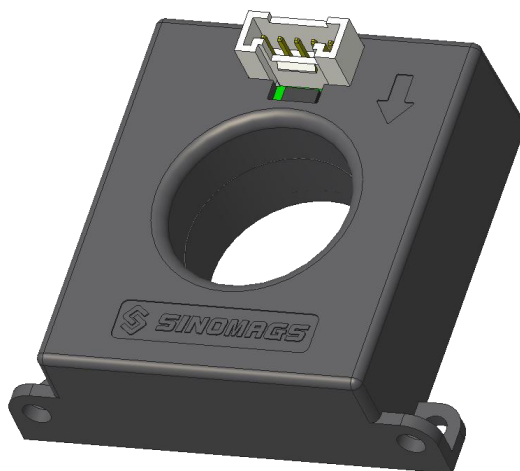


CURRENT SENSOR

PRODUCT SERIES: SFG-X.XCPL/A2

PRODUCT PART NUMBER: SFG-0.3CPL/A2-A

REVISION: Ver 1.2



Sinomags Technology Co., Ltd.

Website: www.sinomags.com

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1. Description

Features

- High and low level output
- Single supply voltage +5V
- Self-check function
- Cobalt base magnetic ring
- PCB mounting.

Advantages

- Stable accuracy
- Low hysteresis offset
- Short response time
- Compact design

Applications

- Ground fault detection
- Converter leakage current detection
- Electric vehicle charge station
- IC-CPD
- Wallbox

Standards

- EN 50178 IEC60950-1
- UL1741 UL508 UL94-V0
- IEC62955
- IEC 61851

2. Absolute parameter

Absolute maximum ratings

Parameter	Symbol	Unit	Min	Typ	Max
Supply voltage	V _c	V			5.5
Ambient operating temperature	T _A	°C	-40		85
Ambient storage temperature	T _A	°C	-40		105

Stresses above these ratings may cause permanent damage. Exposure to absolute maximum ratings for extended periods may degrade reliability.

Isolation parameters

Parameter	Symbol	Unit	Value
RMS voltage for AC test 50Hz/1min	V _d	kV	3
Impulse withstand voltage 1.2/50μs	V _w	kV	7
Lightning surge current 8/20μs	I _{LS}	kA	5
Comparative Tracking Index (Group 2 @UL)	CTI	V	250-400
System working voltage (rms)	V _s	V	600
Application example	-	V	600,CAT III,PD2

3. Electrical data

at $T_A = 25^{\circ}\text{C}$, $V_C = 5\text{ V}$.

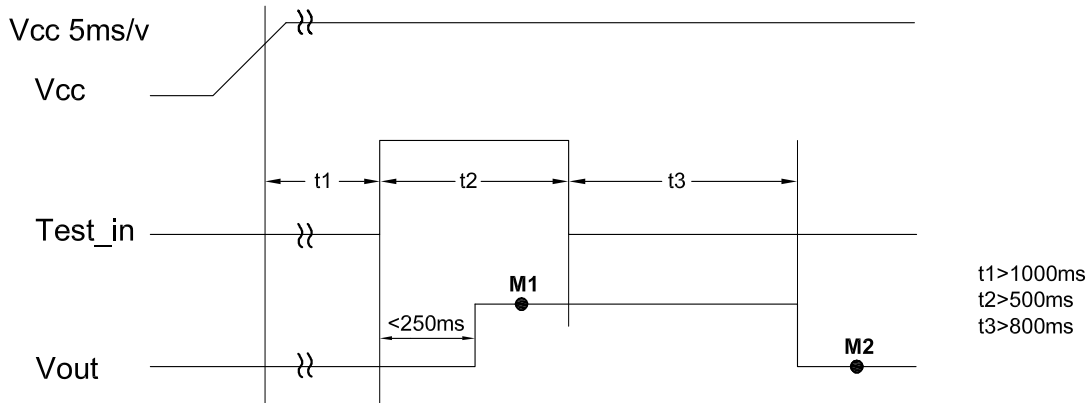
Parameters	Symbol	Unit	Min	Typ	Max	Remark
Supply voltage	V_C	V	4.9	5	5.1	
Current consumption	I_C	mA		25	30	
DC residual operating current	I_{Δ}	mA DC	3		6	
Output voltage (Check function)	V_{CK}	V		V_C		
Self-Check current	I_{CK}	mA		30		
Check enable voltage	V_{CE}	V	3.3		V_C	
Check disabled voltage	V_{CD}	V		< 0.2		
Power on initialization	ton	ms			60	

4. Application information

Self-check Function

Self-check Timing Diagram

@Vcc=+5V±2% t=0



Self-test mode: voltage enable self-test function

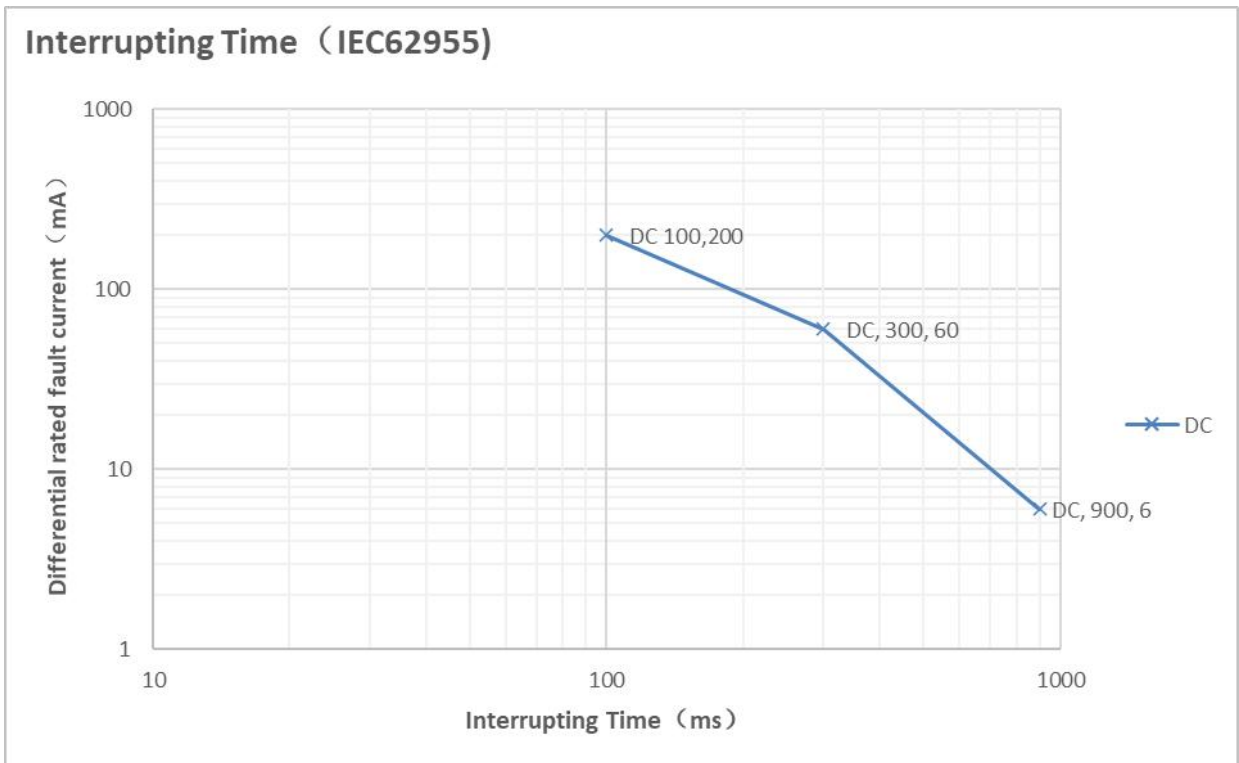
When the CHK pin continuously applies a voltage signal of >3.3V, the RCD-Vout pin outputs a high-level signal

When entering the test program, the corresponding test points should be checked within the specified test time

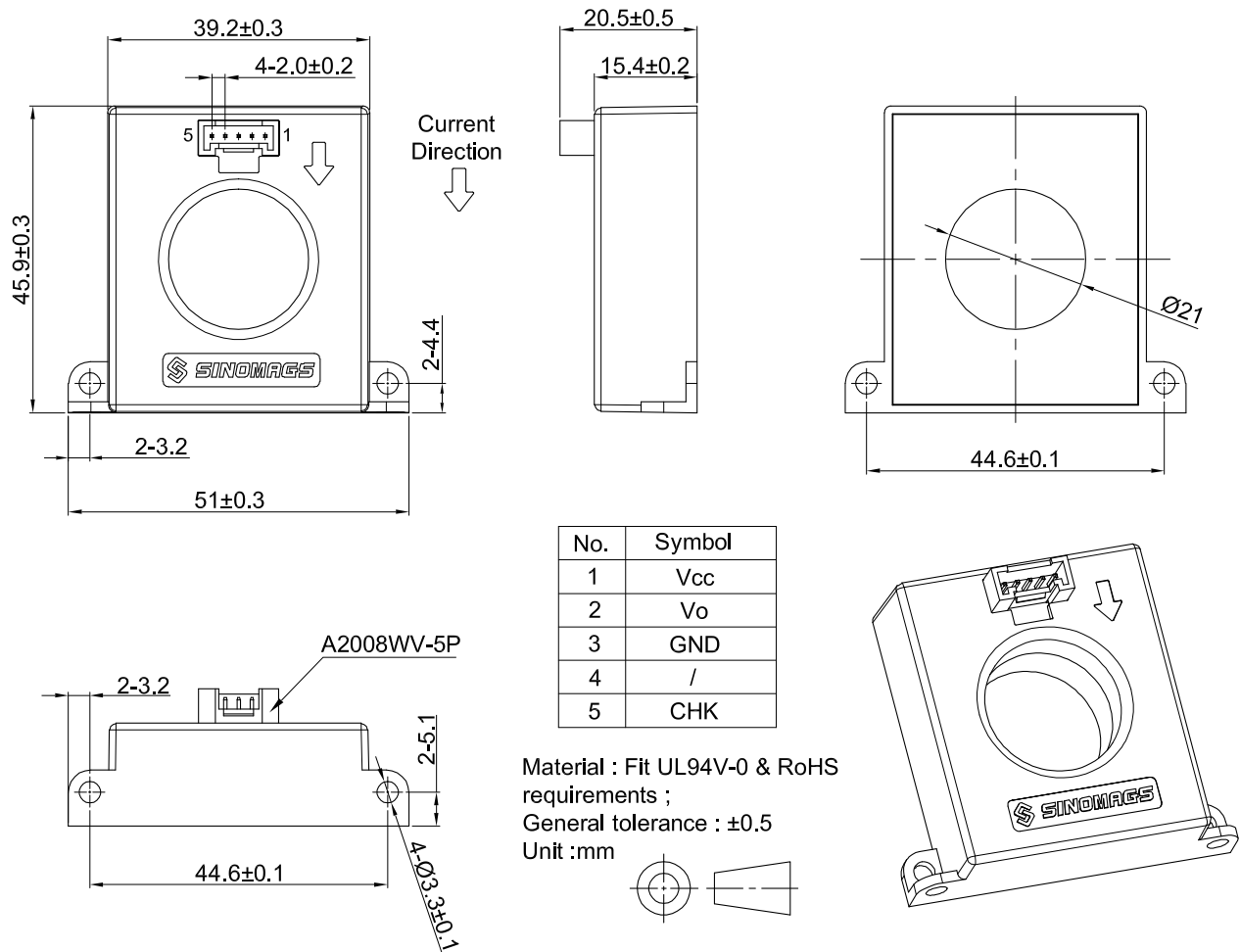
M1: Check whether the output state of this test points is set to high level

M2: Check whether the output state of this test points is set to low level

Interrupting Time (IEC62955)



5. Dimensions (in mm)



Pin Definition

No.	Symbol	Description
1	VCC	Power supply
2	Vo	High and low level output
3	GND	Power GND
4	/	NC-Float
5	CHK	Product Self-Check input