Rogowski coil technology solutions for Fault indicator

1. Coil Technology parameters

No.	Name	Describe		Remark
1	Working temperature（℃）	-40℃ to + 80℃		
3	Coil position error	±1%		
4	Primary current range	1~100kA		
5	Coil linearity	±0.2% from 20% to 120% of rated		
6	Di/Dt output ratio	95mV/kA@50Hz±5mV	32mV/kA@50Hz±3mV	
7.	Coil section diameter	8mm	6mm	
8.	Coil connector	See Point 4		
9.	Coil bandwidth	1~200kHZ		

2. Integrator Technology parameters

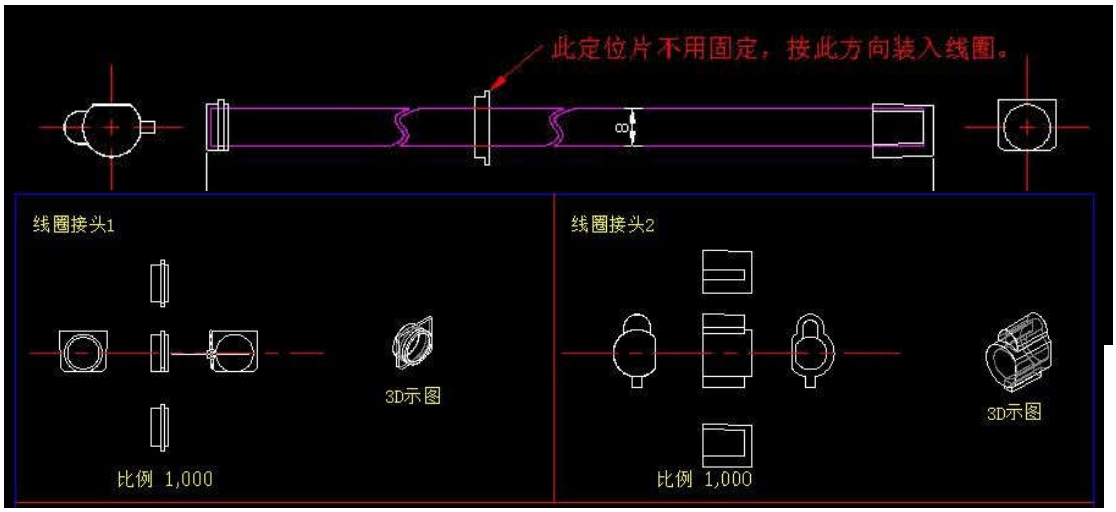
No.	Name	Describe	Remark
1	Rated current	500A,1000A,5000A,10kA	
3	Reference voltage	Outside input 1.25V or 1.5V	
4	Rated current	0-1V or 0-1.2V(±5% tolerance)	
5	Bandwidth	10~20kHZ	
6	Integrator Power supply	one point ±20% in 2.8-5 VDC	
7	Integrator Power consumption	10μA~23μA From 0~120% of rated	
8.	Integrator dimension	16*12*4.3mm	

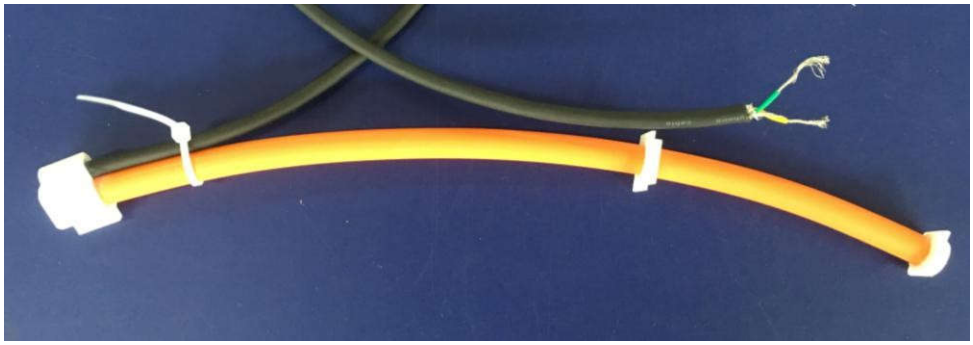
3. Coil material

No.	Name	Describe	Remark
1	Coil&lead cable	Thermoplastic rubber flame retardant material,UL94-V0	
3	Coil connector	ABS(OEM support,3D print early)	
4	Shield	100% coil shield，100% lead cable shield	

4. Rogowski coil dimension

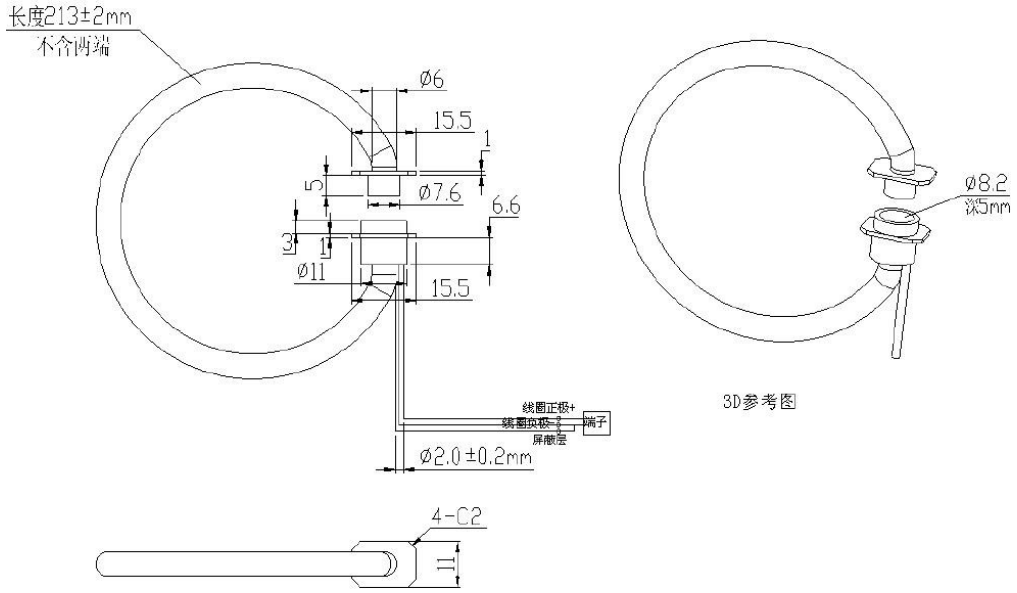
A:

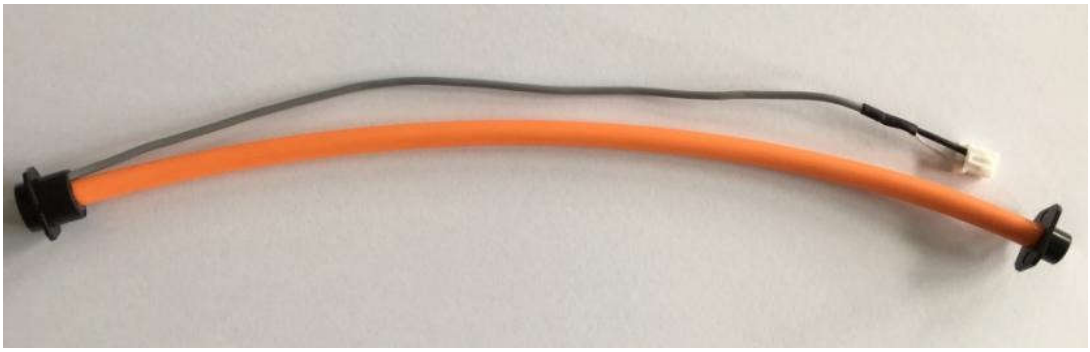


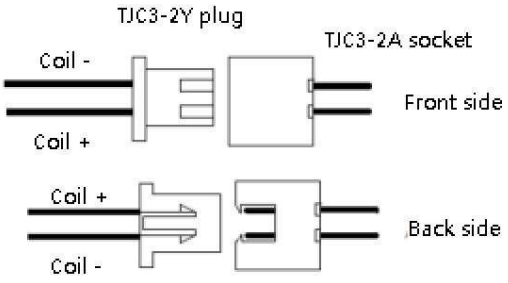


No.	Item		Parameters
1	Coil length		210mm±5mm
2	Coil section diameter		8mm±0.3mm
3	Coil color		orange
4	Lead cable	length	200mm±5mm
		diameter	2*0.2mm²shielded twisted pair
		connector	1）positive，green 2）Negative，yellow+shield

B：



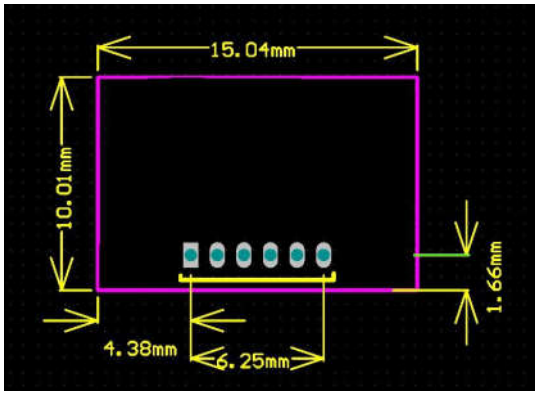




注意引脚的正负极及方向的正确性。

No.	Item		Parameters
1	Coil length		210mm±5mm
2	Coil section diameter		6mm±0.5mm
3	Coil color		Orange
4	Lead cable	length	200mm±5mm
		diameter	2±0.3mm(Including insulation coat)25AWG
			1） Coil lead cable plug,Model No.:TJC3-2Y（2.54mm interval） 2） Positive，connect terminal 1;negative,connect terminal2

5. M3LP Low power consumption integrator module Introductions



Pin define:

1 Coil input Positive C+

2 Coil input Negative C-

3 Vref Reference voltage input（output quality relation to ripple wave quality)

4 Positive power supply input +,(ripple wave as low as possible)

5 Signal GND（GND，connect system ground）

6 Signal output

Attention：

1： 4 is positive power supply pin,between power + and GND connect 0.1UF parallel 10UF capacitor,as close to power pin.。Power consumption increase follow current increase,when primary current is 0,the power consumption is 16μA，when primary current is 1000A,power consumption less than 25μA. Integrator output impedance more than 1MOhms.

2： 1 2 pins are rogowski coil input,2 is negative connect shield together,this two pin must be parallel on PCB,there must be no gap between two wire on PCB，don't connect any wires to this two wire.

3： 6 pin is after integrated signal

4: 3 pin is reference voltage for ADC,request very low ripple wace,recommend use low PPM voltage-regulator diode

5：The outer contour should be 0.5mm more margin

6. Application photo