DC Leakage Current Sensor

SCD20



Product description

Features

- SCD series DC leakage current sensor, using the principle of magnetic modulation closed-loop, for isolated measurement of DC milliampere small current.
- The isolation voltage between primary and secondary is greater than 3000VAC.
- Temperature compensation circuit control, zero drift, accurate measurement.
- Perforated input, unplugging terminals, screw fastening flat mounting.
- Overall size(mm): $119(L) \times 31(W) \times 112(H)$; Aperture: 60mm
- Comply with UL94-V0 flame retardant rating.
- Power supply: DC + 12V

Applications

• Widely used in emerging industries and fields such as electric power, industrial automation, solar photovoltaic, etc.

Implementation standards

- GB/T 7665-2005
- JB/T 25480-2010
- JB/T 11205-2011
- SJ 20790-2000

Technical Parameters

Model	SCD20-				
Parameters $(25^{\circ}C)$	10mA	20mA	50mA	100mA	1 A
Primary Current I _{PN} (DC)	10mA	20mA	50mA	100mA	1A
Primary Current Max. Peak Value I _{PM} (DC)	±10mA	±20mA	±50mA	±100mA	±1A
Output voltage V_{out} @ $\pm I_{PN}$, $R_L=10K\Omega$	3V±2V(±1%)				

Electrical Data

Item	Min.	Typical	Max.	Unit
Input power supply voltage range Vc (±5%) (Remark 1)	+11	+12	+24	V _{DC}
Current consumption Ic	-	+18	-	mA
Withstand resistance R _{INS} @500V DC	1000	-	-	MΩ
Output voltage Vout $@I_{PN}$, R _L =10K Ω , T _A =25°C	$V_{OUT} = 3 + 2.02 * \frac{R_L}{100 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$			V
Output internal resistance R _{OUT}	-	100	-	Ω
Load Resistance R _L	-	10	-	KΩ
Accuracy X $@I_{PN}$, T _A = 25°C	-	±1.5	-	%
Linearity ϵ_L @ R_L =10K Ω , T_A = 25°C	-	±1	-	%
Offset voltage V_{OE} @T _A = 25 °C	-	3V±50	-	mV
Temperature coefficient of offset voltage TCV_{OE}	-	±2	±3	mV/°C
Response Time $t_D @ 0 \rightarrow I_{PN}$	-	500	900	ms
Operating ambient temperature range T_A	-10	25	75	°C
Storage ambient temperature range T_s	-25	25	85	°C
Insulation withstand voltage VD@50Hz, 60s, 0.1mA		3000		V _{AC}
Weight m		310		g

Remark:

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If VC is less than the minimum value, the measurement will be inaccurate. If VC is greater than the maximum value, it may cause permanent failure of the measuring device.

Dimension (in mm):









序号	标识	说明
1	+	+12V
2	G	GND
3	М	Output
4	Ν	NC

Notes:

- 1. Size error: ±1mm;
- 2. Primary aperture: φ60mm;
- 3. Fastening hole: φ6mm*2;
- 4. Output terminal: 2EDGVC-5.08-4P;

5. The IP indication direction is the positive direction of the current, OFS is the zero adjustment, and GIN is the output regulation;

6. Incorrect wiring may cause damage to the sensor;

7. The zero voltage of the sensor can be adjusted appropriately according to the needs of users;

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