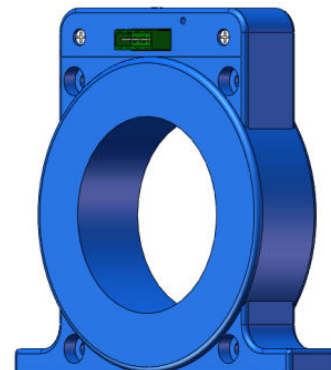


DC Leakage Current Sensor

SCD9



Product description

Features

- SCD9 series DC leakage current sensor, using the principle of magnetic modulation closed-loop, for isolated measurement of DC milliamperes 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): 161(L)×35(W)×150(H); Aperture: 81mm
- Comply with UL94-V0 flame retardant rating.

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

Implementation standards:



Technical Parameters

Model Parameters (25℃)	SCD9-				
	10mA	20mA	50mA	100mA	1A
Primary Current I_{PN} (DC)	10mA	20mA	50mA	100mA	1A
Primary Current Max. Peak Value I_{PM} (DC)	±12mA	±24mA	±60mA	±120mA	±1.2A
Output voltage V_{out} @± I_{PN} , $R_L=10K\Omega$	±5V±1%				

Electrical Data

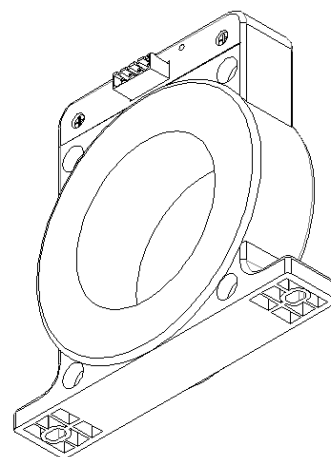
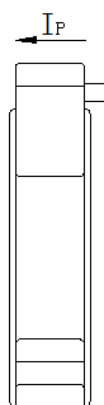
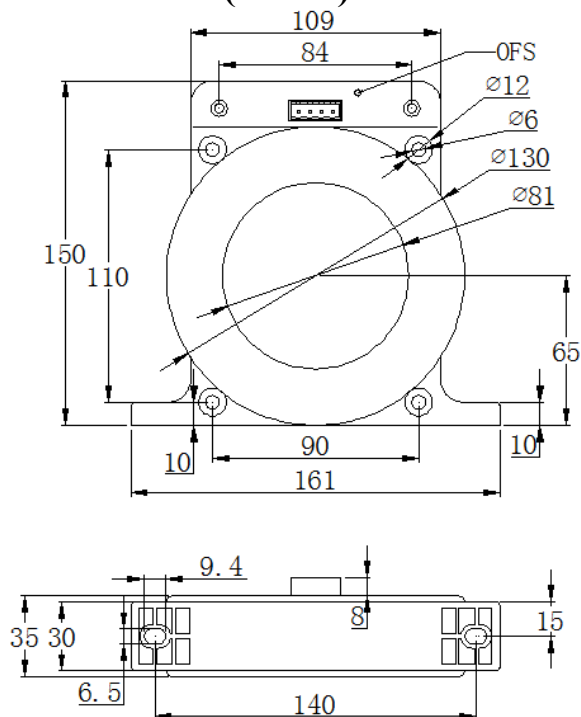
Item	Min.	Typical	Max.	Unit
Input power supply voltage range V_C (±5%) (Remark 1)	±11	±12	±18	V_{DC}
Current consumption I_C	-	±10	-	mA
Withstand resistance R_{INS} @500V DC	1000	-	-	$M\Omega$
Output voltage V_{out} @ I_{PN} , $R_L=10K\Omega$, $T_A=25^\circ C$	4.950	5.000	5.050	V
Output internal resistance R_{OUT}	-	100	-	Ω
Load Resistance R_L	-	10	-	$K\Omega$
Accuracy X @ I_{PN} , $T_A=25^\circ C$	-	±1	-	%
Linearity ε_L @ $R_L=10K\Omega$, $T_A=25^\circ C$	-	±0.5	-	%
Offset voltage V_{OE} @ $T_A=25^\circ C$	-	±50	-	mV
Temperature coefficient of offset voltage TCV_{OE}	-	±1	±2	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 V_D @50Hz, 60s, 0.1mA		3000		V_{AC}
Weight m		750		g

Remark:

1. 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.

$$V_{OUT} = 5.05 * \frac{R_L}{100 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$$

Dimensions (in mm):



单位: mm

序号	标识	说明
1	+	+12V
2	-	-12V
3	M	Output
4	G	0V

Notes:

1. Size error: $\pm 1\text{mm}$;
2. Primary aperture: $\phi 81\text{mm}$;
3. Fastening hole: $\bigcirc 6.5 \times 2.9\text{mm} \times 2$;
4. Output terminal: 2EDGVC-5.08-4P;
5. The IP indication direction is the positive direction of the current, and the OFS is the zero adjustment;
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;