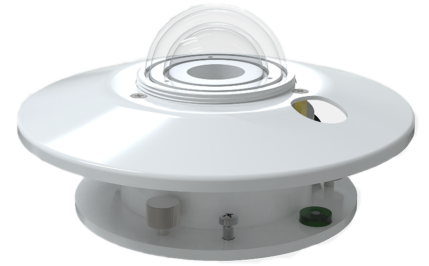


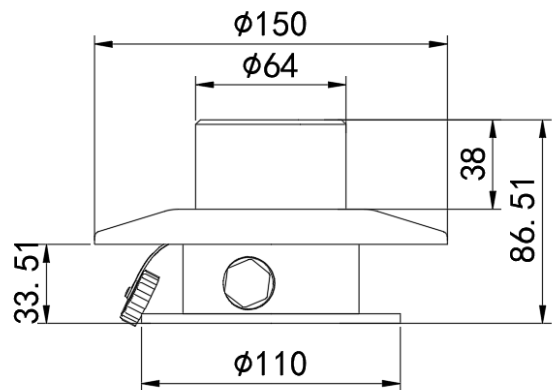
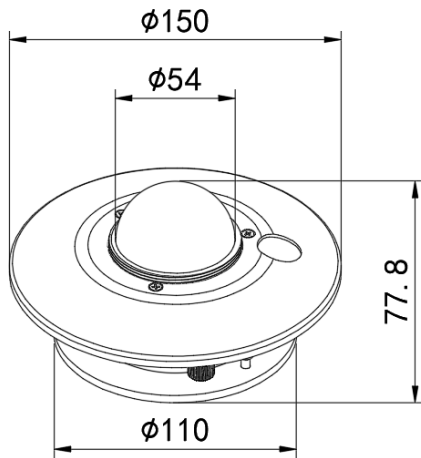
**SEM228T Thermoelectric total solar radiation transmitter**
**MAIN FEATURES**

- The sensing element adopts a wire-wound electroplating thermopile, and the sensing surface is a black layer with high absorptivity, which has short response time and small error.
- Using the thermal effect of radiation, it absorbs solar radiation and converts it into thermoelectromotive force, and has a temperature compensation function, which can more accurately measure solar radiation.
- The upper part of the sensing surface adopts a transparent double-layer glass cover with a light transmittance of 95%, which can not only reduce the influence of air convection on the equipment, but also block the radiation of the cover itself.


**SPECIFICATION**

Power supply	10V~30V DC, or without power supply
Power consumption	485 output: 0.8W 4~20mA/0~5V/0~10V: 1.2W
Output signal	485 (standard Modbus-RTU protocol) 4~20mA current output 0~5V/0~10V voltage output
Working temperature	-40°C~60°C
Working humidity	0%~RH
Sensitivity	7~14 $\mu\text{V}\cdot\text{W}\cdot\text{m}^2$
Internal resistance	about 300 $\Omega$
Response time (99%)	$\leq 30\text{s}$
Non-linear error	$\leq \pm 3\%$
Corresponding error of directionality	$\leq \pm 30\text{W}/\text{m}^2$
Temperature response error	$\leq \pm 8\%$ (-40°C~+40°C)
Corresponding error of tilt	$\leq \pm 5\%$
Spectral range	0.3~3 $\mu\text{m}$
Measuring range	0-2000W/m <sup>2</sup>
Resolution	1W/m <sup>2</sup>
Accuracy	$\pm 3\%$
Annual stability	$\leq \pm 3\%$
Spectral selectivity	$\leq \pm 10\%$
Cosine response error	$\leq \pm 5\%$

**DIMENSION**



**ORDER CODE**

<b>Code:</b>	A	-	B	-	C
<b>SEM</b>	228T	-	A	-	R

Model	Code A
Total solar radiation transmitter	228T
<b>Range</b>	<b>Code B</b>
Aluminum housing	A

Signal output	Code C
485 output (standard Modbus-RTU)	R
4~20mA current output	S4
0~5V voltage output	S5
0~10V voltage output	S1