

**ZY-M100 Micro Motion Sensor**  
Product Manual V1.1

**1 Product Function**

<ul style="list-style-type: none"> <li>■ <b>Fretting detection</b> It can detect small movements, such as hand lifting, hand flicking, hand turning, etc.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Presence detection</b> It can detect the human body standing still, squatting still, sitting still and other static states.</li> </ul>
<ul style="list-style-type: none"> <li>■ <b>Motion detection</b> It can detect walking, trotting, fast running, circling, jumping and other movements.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Distance measurement</b> The target distance measurement function can accurately filter targets outside the area.</li> </ul>
<ul style="list-style-type: none"> <li>■ <b>Illuminance detection</b> Detectable illuminance value</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Log query</b> It can query the records of human existence and illumination change</li> </ul>
<ul style="list-style-type: none"> <li>■ <b>Adjustable parameters</b> Various parameters such as detection distance can be set through app.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Fault detection</b> Equipment fault information can be self checked through app</li> </ul>

**2 Application Area**

ZY-M100 micro motion sensor can be widely used in lighting, security, home appliances, hotels, garages, buildings, transportation, IOT Internet of things and other industries that need to detect human micro motion, motion and control the detection distance.

**3 Technical Parameter**

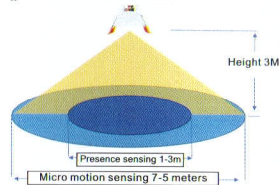
**1. Main parameters of sensor**

Parameter item	mini	Typical	Maximum	unit	illustrate
system parameter	Transmit power			dBm	Pt
	Beam angle			°	@-3dB
	working frequency			MHz	
	Networking mode				
Functional parameters	Wall mounting: micro motion sensing distance		10	m	
	Top mounted: micro motion sensing radius		5	7	m
	sensitivity	1	7	9	
	Photosensitivity value			2000	LUX
	Target confirmation delay time	0	0.1	100	s
	Target disappearance delay time	0	90	15000	s
	Product size		Φ61*H39		mm
	Opening diameter	53	55	58	mm
<p>Note: the top mounting is easier to detect "standing still and squatting". For sitting still, the detection effect is slightly inferior to that of wall mounting. However, by setting greater sensitivity and longer delay time than wall mounting, more accurate detection can also be realized. Wall mounting can detect sitting, standing and squatting.</p>					

**2. Test scope: top mounted**

The following figure is the schematic diagram of the detectable area during "top installation".

- "Inching" detection area: it can detect inching (small actions such as leaning head, waving, raising hands, light start, turning books, slightly tilting left and right, back and forth), movement (walking, trotting, fast running, turning, high jump and other movements), existence (standing still, squatting still);
- "Presence" detection area: it can detect the human body in static state, such as standing still, squatting still, sitting still, etc. Detection area (related to installation height and sensitivity parameters);  
existing detection radius: 1 ~ 3M  
fretting detection radius: 5 ~ 7M



**4 Installation**

**(1) Distribution network**

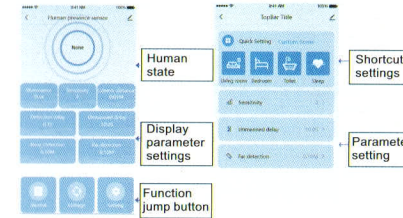
Note: The side wall version uses 5V USB power supply, and the ceiling version uses AC 80-250V power supply.

After the product's residual power supply is connected, the sensor indicator light remains on for 1s to indicate successful power on. Press and hold the reset button for 6s until the indicator light flashes, and enter the distribution network process. Follow the device networking operation on the APP to complete the distribution network.

**(2) Installation**

**Ceiling ceiling installation:** Reserve holes in the ceiling with the size of 55mm, and install them on the ceiling gypsum board with clips on both sides.

**Side wall installation:** remove the two metal clips, paste the double-sided adhesive tape on the blank space on the back and paste it in a suitable position.



**Quality assurance**

Under the normal use of users, the manufacturer provides free 2-year product quality warranty (except panel) replacement, and provides lifelong maintenance quality assurance beyond the 2-year warranty period.

The following conditions are not covered by the warranty:

- 1 Damage caused by external factors such as artificial damage or water inflow;
- 2 The user disassembles or refits the product by himself (excluding panel disassembly and assembly);
- 3 Beyond the technical parameters of this product Losses due to force majeure such as earthquake or fire;
- 4 Installation, wiring and use not in accordance with the manual;
- 5 Beyond the scope of the product's parameters and scenarios