

INSTRUCTION

Label Sensor CFU-208

Thanks for selecting products of ECOTTER.

Please read the instruction carefully before using them.

Warning

- Do not use this product as a human body protection device
- For the purpose of human body protection, please use OSHA, ANSI and ICE products

1 Product introduction

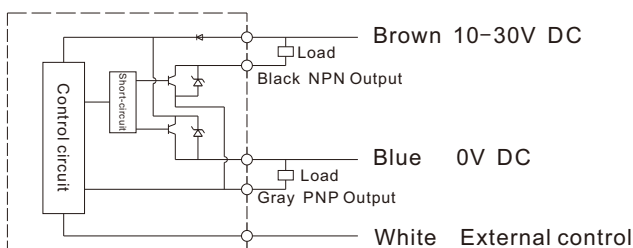


The CFU-208 capacitive label sensor can reliably detect transparent and non-transparent labels. Optional NPN and PNP transistor output for easy control. Metal frames and beveled edges are good for dragging labels. The brighter the balance reference indicator light is, the higher the sensor balance degree is and the better the working state is. The brighter the sensitivity indicator, the higher the sensitivity of the sensor, and the lower the sensitivity of the dark indicator. Sensitivity can be adjusted according to requirements.

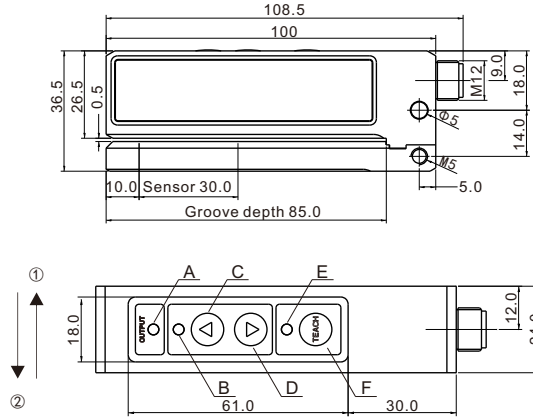
2 Technical parameters

Model	CFU-208
Detection of objects	Transparent and non-transparent label
Connection type	M12/5PIN connector
Supply voltage	10-30V DC
The label width	10mm
The label gap	2mm
Control the output	NPN+PNP
Sensitivity control	Button adjustment
Max current output	100mA
Current consumption	<25mA
Response time	0.1ms
Switching frequency	5KHz
Reverse power protection	Equipment
Short circuit protection	Equipment
Switch position	Labels or gaps can be switched
Ambient temp/humidity	0°C to 55 °C/0-80RH
Size	108.5×24×36.5mm
Shell material	Aluminium alloy
Remark	Can be customized according to customer requirements related products

3 Wiring diagram



4 Dimension & Interface description



- A: Output indicator
- B: Sensitivity indicator
- C: Sensitivity Increase button
- D: Sensitivity decrease button
- E: Benchmark Balance Indicator
- F: Benchmark adjustment button

6 Operation

A Balance base value setting:

Remove the label from the detection slot and long press for 5 seconds, until the reference indicator flashes twice and the key is released. Then the reference indicator will remain on (if the reference indicator is not on, repeat step 1 until the reference indicator remains on) and the setting is completed.

B Sensitivity setting:

Firstly, insert the label into the detection slot, and press and for 5 seconds, until the sensitivity indicator and output indicator are flashing at the same time. Release the button and enter the setting state of 10 seconds. At this point, drag the label back and forth (it is best to keep the label gap parallel to the detection slot, and the drag is smooth and slow, at least 5 label gaps should be passed). Until the sensitivity indicator light is on, the setting is completed.

Note: when entering the setting state, the label must be in the detection slot and cannot be pulled out of the detection slot.

C Fine tuning of sensitivity: (this step can be omitted if it meets the work requirements after setting steps 1 and 2)

Increase the sensitivity: long press for 2 seconds until the sensitivity indicator flashes twice before releasing the key.
Decrease sensitivity: long press for 2 seconds until the sensitivity indicator flashes twice before releasing the key.
If long press 2 seconds, the sensitivity indicator will not flicker, indicating that the sensitivity is the highest or the lowest.

Note:

The induction position of the switch on the label is related to the direction of the label entering the sensor slot horizontally and the level of the control line.

Output switching is shown in the following table:

Direction of movement	Switch Output (PIN2)	
	White line (PIN4) connected to VDD or not	White (PIN4) connected to 0V
①	Output in the gap	Output in the label
②	Output in the label	Output in the gap

7 Attention

- Make sure to wire the sensor with the power off.
- Please confirm that the power supply voltage is within the rated range.
- If the power supply is supplied by a commercial switching regulator, ensure that the power frame ground terminal (F.G) is grounded.
- If there are a noise-producing device is used near the sensor, such as switching regulator, switching engine, etc., make sure that the grounding terminal (F.G) of the device is grounded.
- Do not use the sensor for a short time (0.5s) after the power is turned on.
- The sensor is not equipped with short circuit protection. Do not connect the capacitor or capacity load directly.
- Do not run the line together with the high voltage or power line or in the same conduit, which may cause malfunction due to induction.
- Cables up to 0.3mm can be extended to 100m.
- Avoid exposure to dust, dirt and steam.
- Do not touch the sensor directly with water, oil, grease or organic solvents such as thinner.