



JULONG



JL-50---SERIES----Contrast Sensor

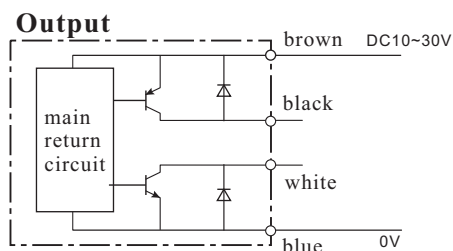
JL-50 series contrast sensor has built in PIC chip, the background and mark can be identified intelligently. The sensor chooses appropriate light according to the color difference of background and mark. In addition, compared with traditional Z3N and Z3S color mark sensor, Z3K-ZN is highly competitive and convenient due to its high precision and high response time



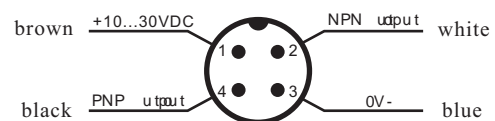
■ Key Technical Parameters

Power supply	DC10-24V
Ripple	2Vpp max
Output	1 NPN output 1 PNP output
Output current	100mA max
Output saturation voltage	≤2V
Response time	33 μ s
Switching frequency	15kHz
Indicators	OUT LED(yellow)/READY LED(green)
DARK/LIGHT selection	Automatic
Temperature	operating:-10~5 storage:-20~70
Operating distance	9mm+/-1mm
Emission type	RED(630nm)/GREEN(520nm)/BLUE(465nm) with automatic selection
Housing Material	ABS
Lens Material	PMMA
Mechanical protection	Ip67
Connection	M12 4 core protection shielding cable
weight	90g

■ Output



■ Cable Connection Interface



JL Electronic CO.,LTD., Longyou, Zhejiang

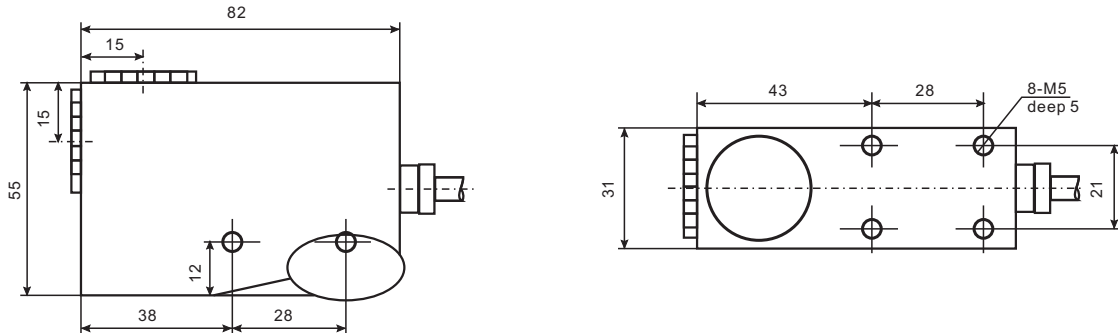
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■ Shell size



■ Installation

The sensor can be positioned using threaded M5*5 holes

Do not apply excessive torque when adjusting(max 2.2Nm).

The operating distance is measured starting from the front surface of the sensor optics

Mark detection on a reflective surface is improved adjusting the beam direction to 5-20° from surface axis.

■ DETECTION

1 Position mark in front of the sensor light spot and press **(MARK)** button until the READY LED(green) turns OFF.

The sensor detects the mark alternating the red, green and blue emissions.

Avoid mark movements during this phase.

2 Position the background in front of the sensor light spot and press **(BKGD)** button; the sensor detects the mark alternating the red, green and blue emissions. Avoid background movements during this phase.

The DARK/LIGHT operating mode is automatically selected by the sensor.

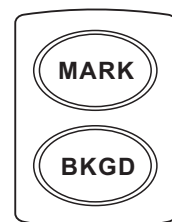
Dark mark - light background = Dark mode.

Light mark - dark background = Light mode.

If the READY LED (green) is permanently ON, the detection is successful.

If the LED blinks slowly, the detection has failed due to insufficient contrast.

The sensor returns to the previous setting by pressing one of the two push-buttons



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