

# OHDMB Series Magnetic Recognition Sensors

## 1. General Description

**OHDMB Series Magnetic Recognition Sensors** are a magneto-dependent sensor with high sensitivity, which is also called magnetic heads. They are composed of semiconductor material indium stibnite (InSb) magnetic resistance chips and permanent magnet supplying InSb magnetic resistance chip bias. With hard metal as its outer covering, the sensors have excellent anti-interference ability. Magnetic sensors, with excellent assembly techniques, have extremely high-cost performance.

OHDMB series sensors can replace the sensor of MURATA and NIKKOSHI.

## 2. Features

- High stability and excellent SNR
- Contactless detection, stable output, and fast response
- Output voltage is independent of the moving speed of the magnetic objects
- Pure resistances act as sensing element  
Strong anti-interference capability
- Broaden detection width and low noise

## 3. Applications

- Dynamic Money Detector
- Static Money Detector
- Detection of Weak magnetic ink
- Detection of RMB and Foreign currency
- Detect the magnetic signal of banknotes
- Detection of Maggard and Bar magnet

## 4. Absolute Maximum Ratings (TA=25°C)

Parameter	Symbol	Value	Unit
Supply Voltage	V <sub>amax</sub>	5.5	V
Insulation resistance	R <sub>insmin</sub>	5	MΩ
Operating Temperature Range	T <sub>A</sub>	-20~+60	°C
Storage Temperature	T <sub>s</sub>	-20~+70	°C



## 5. Technical Characteristics (Ta= 25°C )

Parameters		Symbol	Value			Unit
			Min.	Typ.	Max.	
Sensitivity <sup>note1</sup>		s	900	1200	-	mVp-p
Symmetry <sup>note2</sup>		d	0	-	35	%
Sub-Resistance		R <sub>sub</sub>	0.1	-	2	KΩ
Total-Resistance		R <sub>total</sub>	0.2	-	4	KΩ
Noise		Vo	-	-	50	uVp-p
Effective Detection Width	OHDMB-01	W	-	4.3	-	mm
	OHDMB-01A		-	7.3	-	mm
	OHDMB-01B		-	22.5	-	mm
	OHDMB-04		-	4ch*10	-	mm
	OHDMB-06		-	6ch*10	-	mm
	OHDMB-09		-	9ch*10	-	mm
	OHDMB-13		-	13ch*10	-	mm
	OHDMB-18		-	18ch*10	-	mm
	OHDMB-24		-	24ch*7.3	-	mm
	OHDMB-64		-	64ch*1	-	mm
OHDMB-129	-	129ch*1	-	mm		
Magnetic Flux Density		B	-	0.12	-	T
Resolution		T	-	0.75	-	mm

**Note1.** Sensitivity: Amplify electric current with 1100 times, when magnetic head scanning surface aims at the tinsel (0.1mm) with 100mA,50Hz A.C. and slide linearly with it slowly, then measure the peak-to-peak value of the output voltage with an oscilloscope, and the maximum value is sensitivity.

**Note 2.** Symmetry = |MR1-MR2|/ MR1 (or MR2).

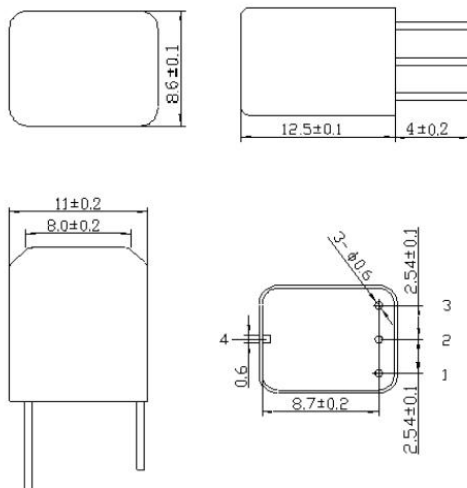


**6. Order information**

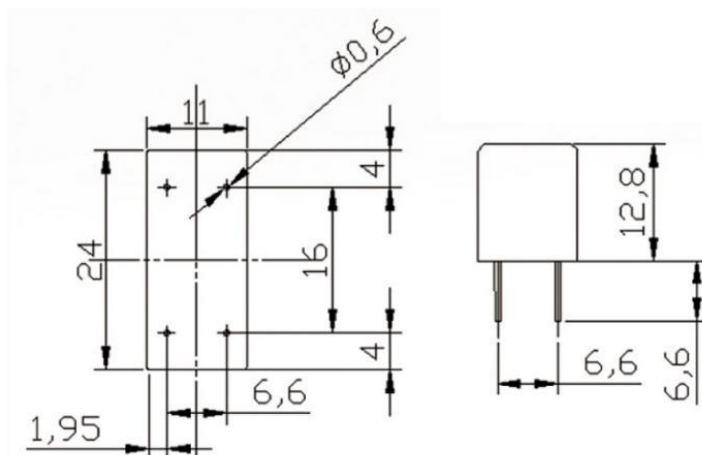
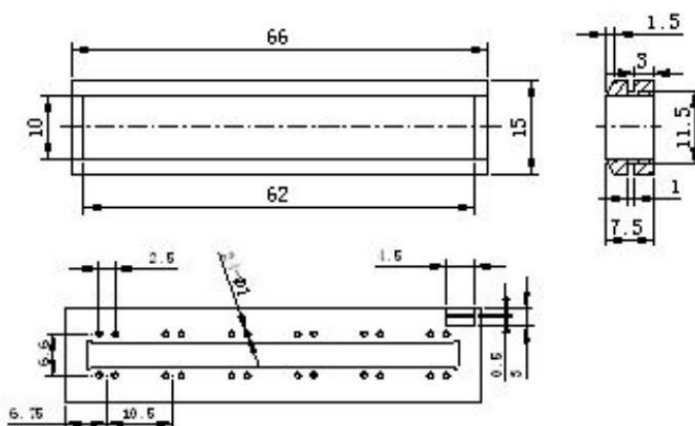
Part number	Package type	Effective Detection Width	Part number	Package type	Effective Detection Width
OHDMB-01		4.3mm	OHDMB-09		9ch*10
OHDMB-01A		7.3mm	OHDMB-13		13ch*10
OHDMB-01B		22.5mm	OHDMB-18		18ch*10
OHDMB-04		4ch*10mm	OHDMB-24		24ch*7.3
OHDMB-06		6ch*10mm	OHDMB-64		64ch*1

\* More specifications can be customized

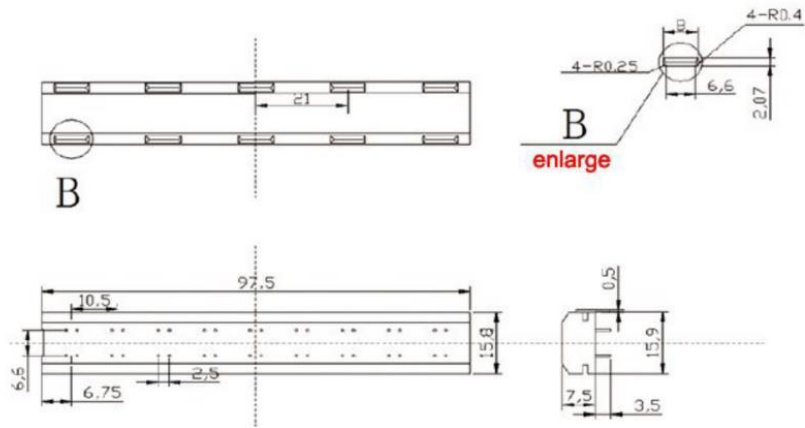


**7. Dimension Unit: mm**
**OHDMB-01**  
**OHDMB-01A**


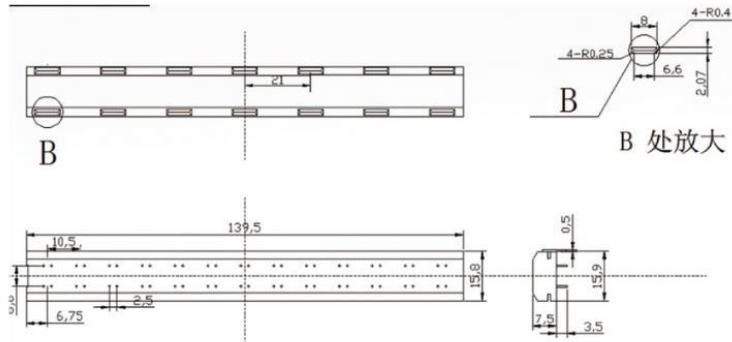
Pin 1: Output  
 Pin2: Vcc  
 Pin3: Ground  
 Pin 4: Frame Ground

**OHDMB-01B**

**OHDMB-06**


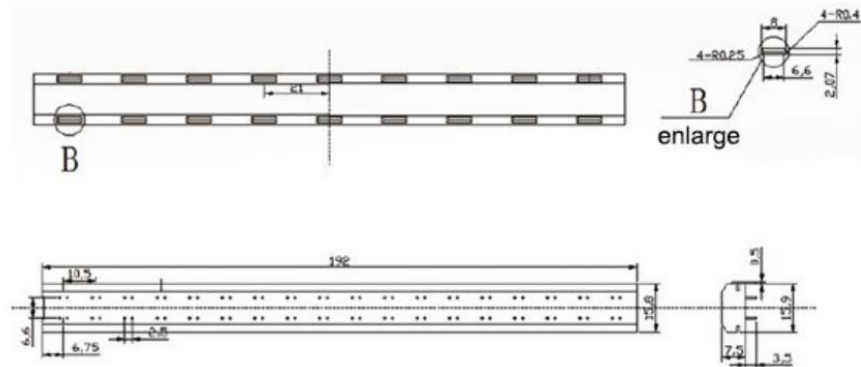
**OHDMB-09**



**OHDMB-13**



**OHDMB-18**



For more information:

Ouzhuo Technology service you through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing, or the nearest Authorized Distributor, you could reach us the way you are convenient, thank you for your support!

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**NOTICE:**

The information presented in this datasheet is for reference only. Specifications may change without notice.

