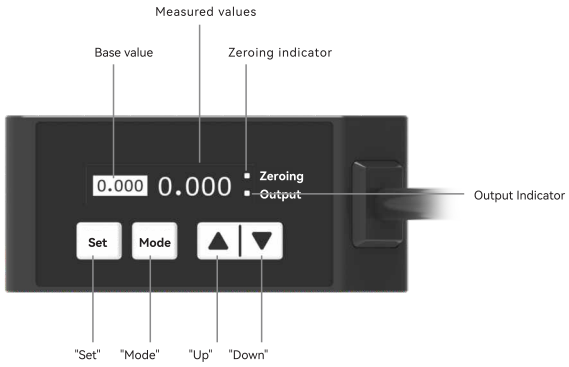


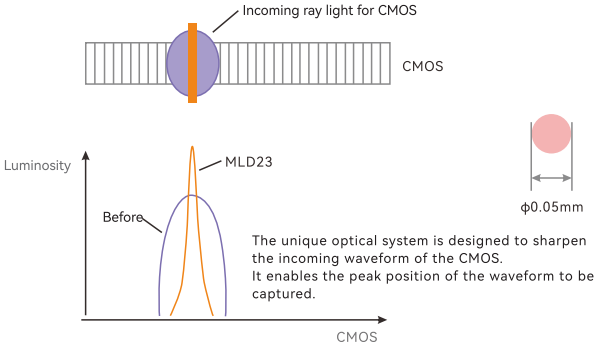

## Mini Chinese Display

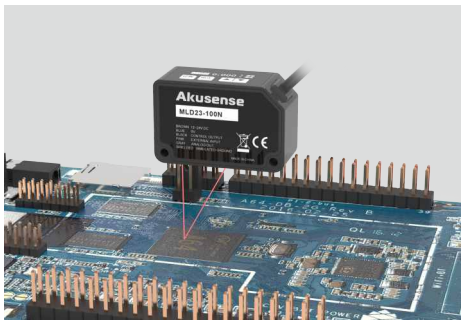
More Intuitive and Simple for Commissioning

## Convergent harnesses for more accurate detection

Akusense has developed its own optical system to significantly converge and improve the beam to 50um;

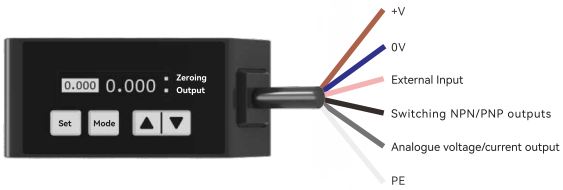
An ultra-small spot size of 0.05mm formed, which detects objects with stability and accuracy.




## Convenient Installation

Integration of analogue voltage, analogue current and switching



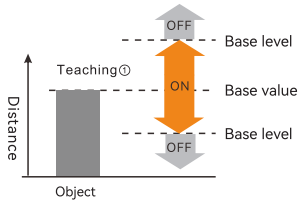

## Micron-level linear accuracy

Linear accuracy reaches to 0.01mm for easy inspection with high accuracy

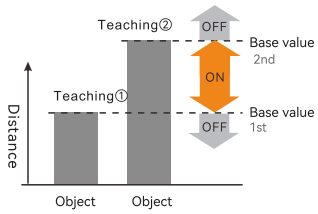
## Simple and flexible test patterns

Multiple teaching modes to make testing easier

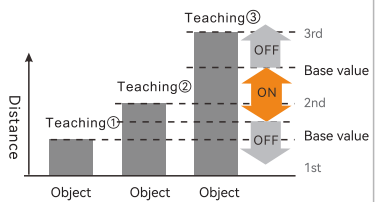
### Teaching Point 1




### Teaching Point 2




### Teaching Point 3



# Selection Guide

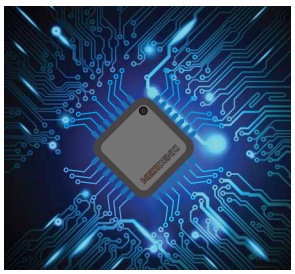
## MLD23 Series

### Faster, more stable, more accurate

Three test modes are for option:
standard, high speed and high accuracy

①Ultra-high speed computing and processing

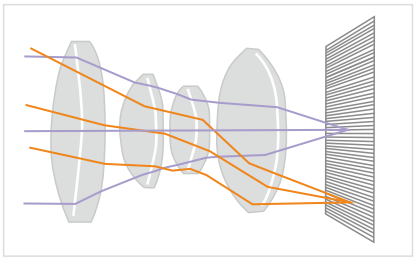
The application of Akusense 's advanced IC and algorithm technology has greatly improved the sensor's detection rate and data accuracy, allowing for both high speed transmission and stable detection of measured values.

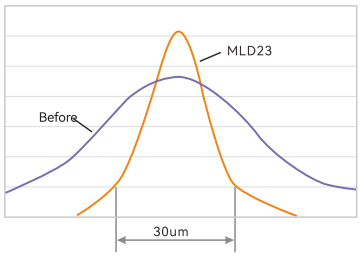


**Max 1.5ms response time**

**Repeat accuracy up to10um**

**Min ±0.1% F.S linearity**



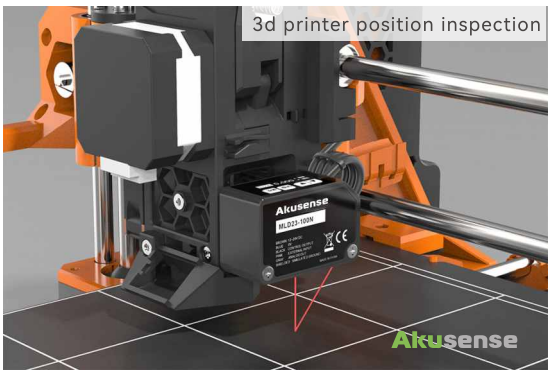



### ② Achieving greater precision

The new Akusense high-resolution lens design reduces pixel aberration and is assembled with precision.

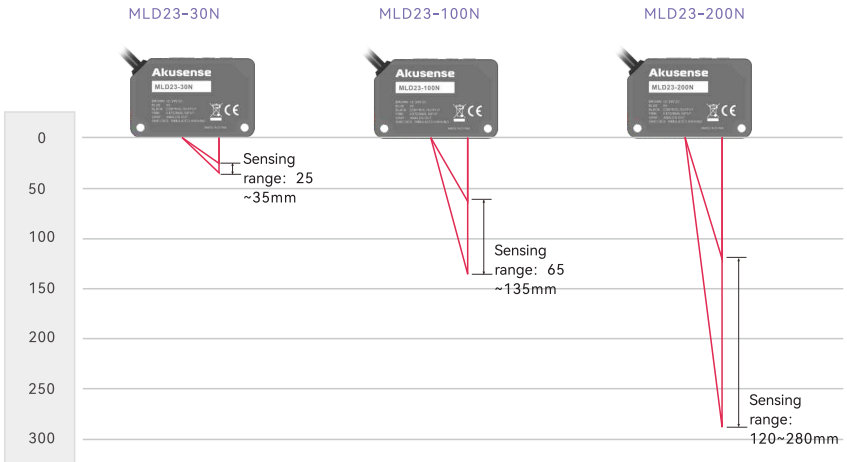
The small spot of light at any angle can be imaged at the receiving section, resulting in a smaller waveform and higher measurement accuracy.

## Application





## Selection table




| Model | MLD23-30N |
|---|---|
| Repeat accuracy | 10μm |
| Linear accuracy | ±0.1% F.S. |
| Base distance | 30mm |

| Model | MLD23-100N |
|---|---|
| Repeat accuracy | 70μm |
| Linear accuracy | ±0.1% F.S. |
| Base distance | 100mm |

| Model | MLD23-200N |
|---|---|
| Repeat accuracy | 200μm |
| Linear accuracy | ±0.2% F.S. |
| Base distance | 200mm |

## MLD23 Series



Economical type

| | | | | |
|---|---|---|---|---|
| Appearance | |  | | |
| Principle | | Diffuse reflection | | |
| Center of sensing distance | | 30mm | 100mm | 200mm |
| Sensing distance | | 25~35mm | 65~135mm | 120~280mm |
| Repeat accuracy | | 10μm | 70μm | 200μm |
| Light source | Medium, wavelength | Red semiconductor laser, wavelength：655nm | | |
| | Max. output power | 1mW | | |
| | Laser class | Class2 | | |
| Standard | | EMC | | |
| Temperature drift | | ±0.03%/℃ F.S. | | |
| Spot size | | ≈Φ0.05mm | ≈Φ0.15mm | ≈Φ0.3mm |
| Linearity | | ±0.1% F.S. | | ±0.2% F.S. |
| Supply voltage | | 12~24V DC±10% | | |
| Current consumption | | < 60 mA ( 24V DC ), < 100mA （12V DC ) | | |
| Response time | | 1.5ms/5ms/50ms switchable | | |
| Switch Output | | NPN open-collector transistor, max. inflow current: 50mA;<br>applied voltage: < 30V DC （between control output-0V), residual voltage: < 1.5V (inflow current < 50mA) | | |
| Analog output | Voltage | Output range: 0V ~ 5V (when alarm: +5.2V), output impedance: 100Ω | | |
| | Current | Output range: 4mA ~ 20mA (when alarm: 0mA), load: less than 300Ω | | |
| External input | | Input conditions Invalid: +8V ~ +V DC or open, valid: 0V ~ +1.2V DC; input impedance: about 10kΩ | | |
| Ambient performance | Protection Degree | IP66 | | |
| | Ambient Temperature | -10℃~+45℃，No freezing | | |
| | Ambient humidity | 35%~85%RH，No condensation | | |
| | Ambient light | Incandescent lamp: Illumination below 3000Lux on the light-receiving surface | | |
| Cable | | 5-core 2M cable | | |
| Material | | Aluminum, acrylic | | |
| Model | | MLD23-30N | MLD23-100N | MLD23-200N |

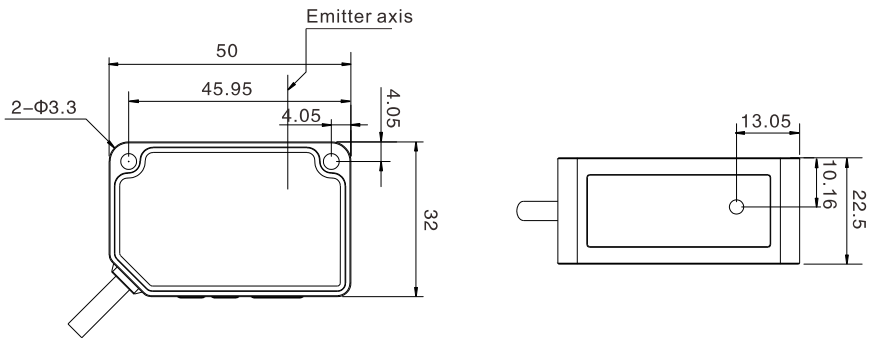
Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
Vision
Code Readers
Vibration
Temperature
Accessories

Guidance

Displacement
Triangulation
Linear measurement
Magnetic displacement
LiDAR Scanner
Color confocal

## Dimensions

Unit： mm



# Mini Digital Display

## Circuit Diagram