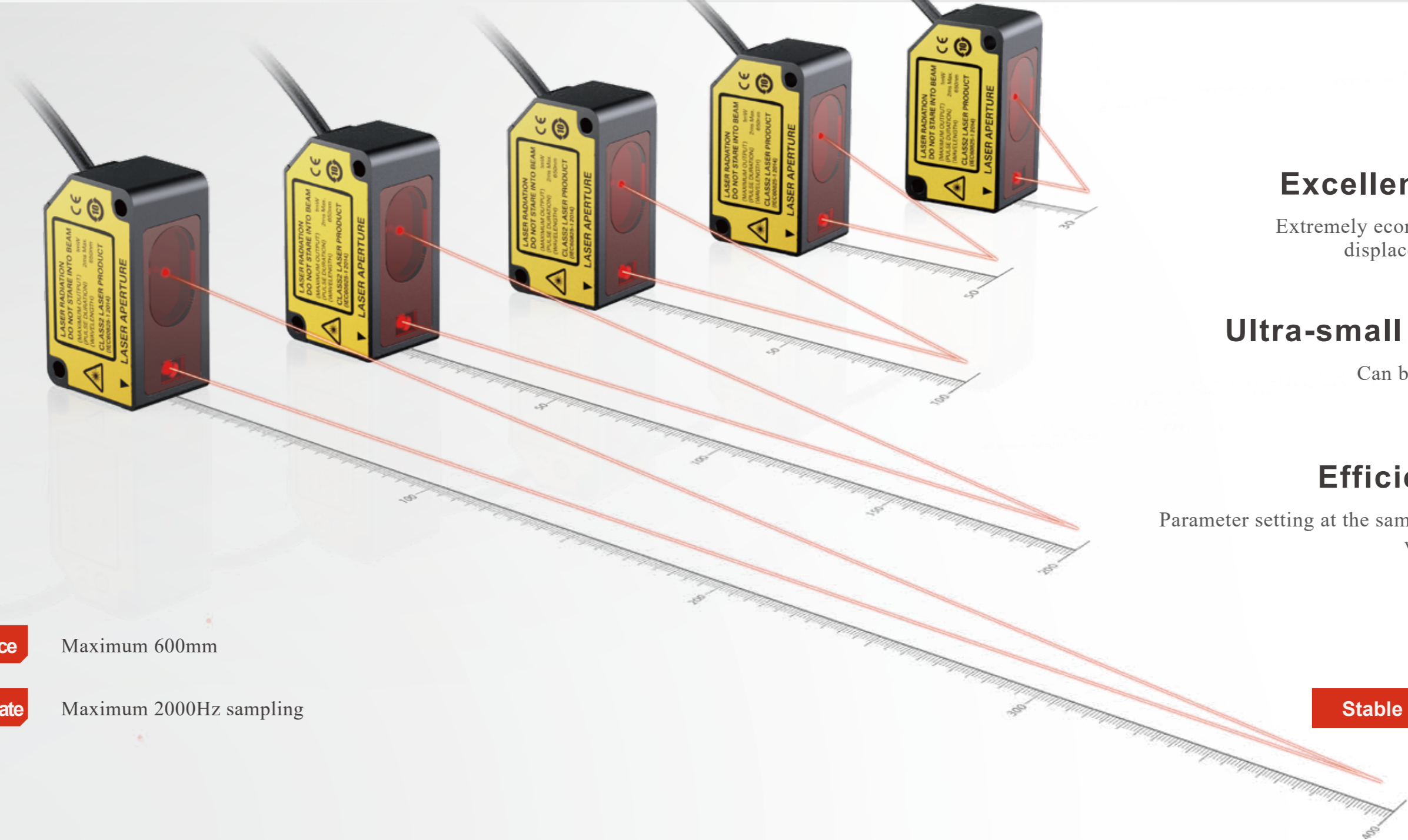


Ultra-compact, cost-effective and efficient laser measurement experience

The MD series is equipped with ViziFuze's latest high-speed CMOS chip to achieve top stability and repeatability in its class.

MD -400	MD-200	MD-100	MD-50	MD-30
Reference distance 400mm	Reference distance 200mm	Reference distance 100mm	Reference distance 50mm	Reference distance 30mm
Measurement range 200-600mm	Measurement range 120-280mm	Measurement range 65-135mm	Measurement range 35-65mm	Measurement range 25-35mm
Linearity $\pm 0.3\%$	Linearity $\pm 0.2\%$	Linearity $\pm 0.1\%$	Linearity $\pm 0.1\%$	Linearity $\pm 0.1\%$
Repeatability 800 μm	Repeatability 200 μm	Repeatability 70 μm	Repeatability 30 μm	Repeatability 10 μm



Excellent price

Extremely economical laser displacement sensor

Ultra-small design

Can be installed in small spaces

Efficient use

Parameter setting at the same time as the value display

Long distance

Maximum 600mm

High frame rate

Maximum 2000Hz sampling

FDA RoHS

Stable and reliable

Precision optical construction

A new optical system with an internally mounted reflector reduces the size of the depth direction and realizes high-precision measurement of the sensor at the same time.

Complete qualification

All series of products comply with CE, RoHS standards, with FDA, UL certification.



Compact, lightweight exterior design

Adopting an aluminum casting housing, it pursues the miniaturization of the body while ensuring a rugged and durable sensor structure.

Convenient Interactive Interface

Visualize a variety of information, easily complete the sensor configuration, and achieve stable, high-speed, high-precision distance measurement with one click.

Clear display

Clear display even under sunlight. Simple operation, two-point display, and limiting factor. Measurement can be started in as little as 2 seconds with only two steps.

Excellent temperature adaptation

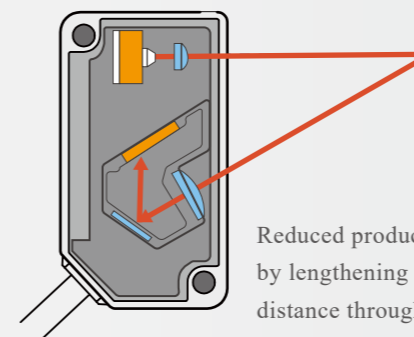
The optical components are bonded by three-dimensional UV to suppress stress and achieve good temperature characteristics.



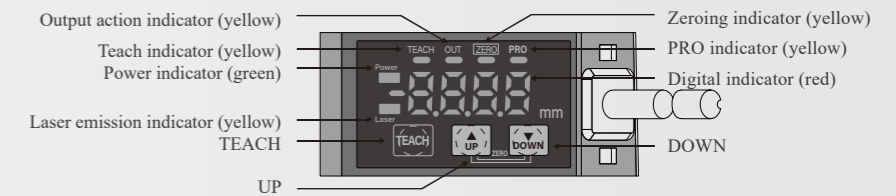
1:1 Product Schematic

MD Series

Reflector design

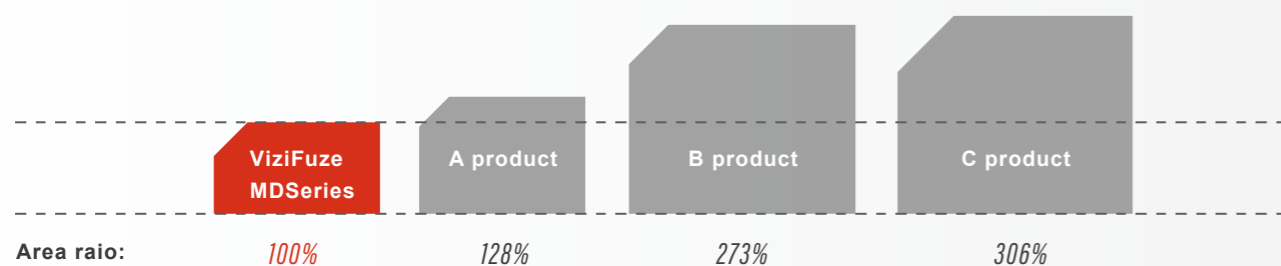


Reduced product form factor by lengthening the phase distance through mirrors.



Visual Interactive Interface

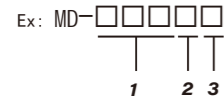
Exterior Size Comparison



Rough comparison between VizeFuze MD series and the mainstream A/B/C products on the market

Extremely competitive products create rich benefits for users

Specification



1 Sensor range

030:30±5mm	200:200±80mm
050:50±15mm	400:400±200mm
100:100±35mm	

2 Analog output signal type

V: Voltage type
I: Current type

3 Determine the output type

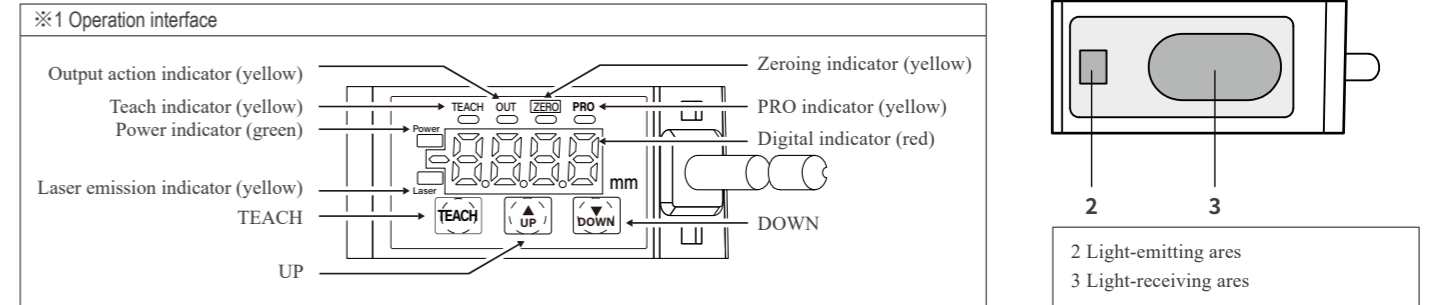
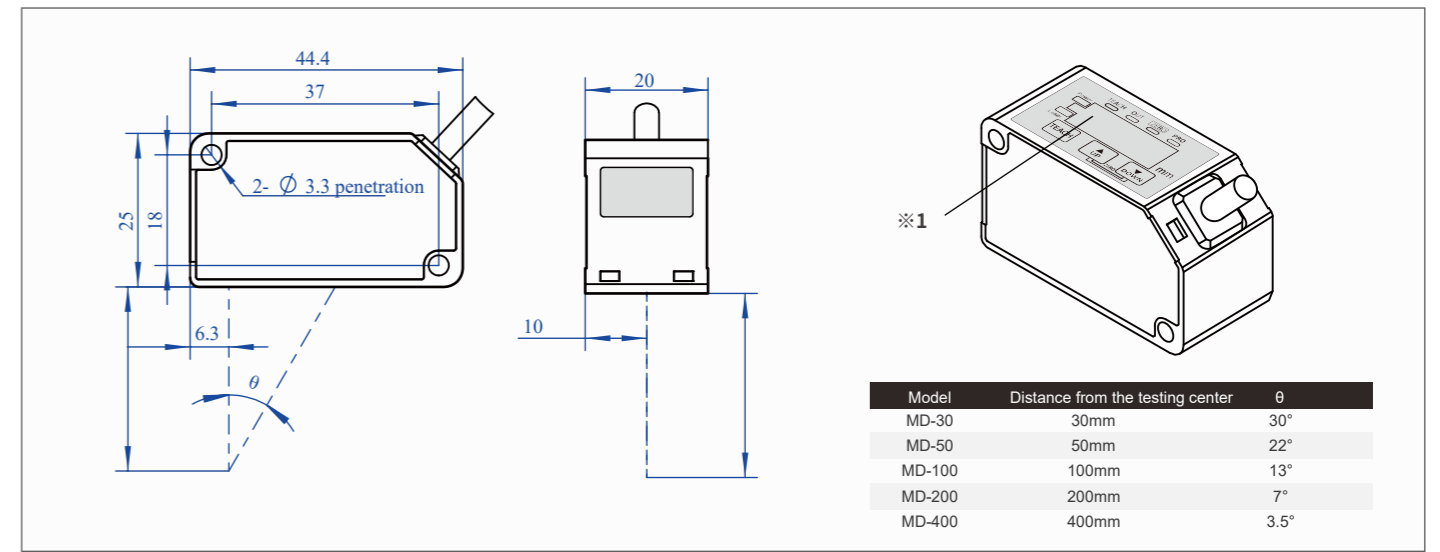
N: NPN
P: PNP

※Example: MD-30VN, indicated as sensor range of 30±5mm, analog output signal type is voltage type, and judgment output type is NPN type.

BZ Series		Laser Displacement Sensor			
Model	MD-30	MD-50	MD-100	MD-200	MD-400
Reference distance	30mm	50mm	100mm	200mm	400mm
Measuring range	25-35mm	35-65mm	65-135mm	120-280mm	200-600mm
Linearity※1	±0.1%	±0.1%	±0.1%	±0.2%	±0.3%
Repeatability※2	10μm	30μm	70μm	200μm	800μm
Applicable standards and certifications※3	EMC directive, ROHS directive, CE marking, FDA standards				
Light source	Visual semiconductor laser wavelength 650nm, maximum output 1mW, class 2 laser IEC/GB/FDA				
Spot size	50μm	70μm	120μm	300μm	500μm
Optical receiving device	CMOS image sensor				
Supply voltage	12-24V DC±10% power pulsation P-P10%				
Current consumption	40mA or less (at 24V DC supply voltage)				
Judgment output	NPN type		PNP type		
	Maximum inflow current: 50mA, applied voltage below 30VDC, residual voltage 1.5V, leakage current below 0.1mA		Maximum outflow current: 50mA, maximum applied voltage below 30VDC, residual voltage 1.5V, leakage current below 0.1mA		
Output operation	ON when light is in/ON switchable when light is not in				
Output short circuit protection	Equipped (automatic reset type)				
Analog output	4-20mA (Load impedance below 300Ω), 0-5V (Output Impedance 100Ω)				
Response time	1.5ms/5ms/10ms switchable				
External input	NPN type		PNP type		
	NPN non-contact input, invalid: +8~+VDC or disconnected Valid: 0~+1.2VDC Input impedance about 10kΩ		PNP non-contact input, invalid: 0V~+0.6VDC or disconnected Valid: +4V~+VDC Input impedance about 10kΩ		
Action indicator light	Power green LED; Laser, OUT, ZERO, AL, PRO yellow LEDs				
Digital display	4-digit break code display				
Temperature characteristics	0.05%F.S./°C				
Use ambient illuminance	Illumination of lighted surfaces incandescent lamps 3000lux or less				
Ambient temperature range	Working hours 0-40°C, when saving -15~65°C				
Ambient humidity range	Working hours 35%RH~85%RH when saving 35%RH~85%RH				
Impact resistance	Acceleration 500m/s ² , 3 times in each direction XYZ				
Vibration resistance	10-55HZ Double amplitude 1.5mm, XYZ each direction 2 hours				
Cable length	24AWG 5-conductor composite cable, 2m long				
Protection level	IEC IP67				
Material	Housing body: cast aluminum parts, front cover: PC				
Notes	※1 Indicates the error relative to the ideal straight line of the displacement output when measuring our standardized object. Linearity and measurement values vary depending on the object. F.S. indicates the entire measuring range. ※2 The maximum range of fluctuation of the measured value when detecting the measured object in a completely stationary state. ※3 It is scheduled to be classified as diffuse-reflective type Class 2 according to IEC60825-1 in accordance with Laser Notice No. 50 of the FDA standard, and has been declared CDRH.				

*Product specifications are subject to change without notice, please consult the company's sales role shall prevail.

Product dimension



Type	Model	Description	Product Pic.
Simple mounting bracket	MS-MD-01	Vertical mounting bracket With 2 padded diagrams and M3 screws (25mm long) (SPCC)	

