



MV GREENTECH PVT LTD.



# Product Catalogue

Ultra Precision Sensing Solutions

# LASER RANGING SENSOR

## TOF BACKGROUND SUPPRESSED TYPE SERIES

- 0-2M is detected by setting distance, so it is not affected by color and material, saving the evaluation and adjustment time when replacing the workpiece.
- 2 types of TOF: TG30 2M with plastic housing, TG40 2M with metal housing



Laser light source	Laser diode 650nm, $\leq 1$ mW; compliant GB7247.1-2001, Class I laser eye safety requirements
Laser level	Class 1
Ranging frequency	1000Hz Adjustable
Working distance	0.05m-2m/4m
Weight	<10g
Dimensions (length, width and height)	33mm x 20mm x 11mm
Protection level	IP65
Working temperature	-20C-+75°C

## MINIATURE HIGH PRECISION SERIES

10 $\mu$ m high precision detection is equipped with 0 ~ +5V analog voltage output and 4 ~ 20mA analog current output.



# LASER RANGING SENSOR

Product number	High functional type	MG03 -L	MG05 -L	MG08 -L	MG12 -L	MG25 -L
Measurement method		Diffuse reflection				
Determine center distance		30mm	50mm	85mm	120mm	250mm
Measuring range		±4mm	±10mm	±20mm	±60mm	±150mm
Light source		Red semiconductor laser level 1 (JIS/IEC/GB/KS/FDA Laser Notice No.50/GB) Maximum output: 0.39mw, emission peak wavelength: 655nm				
Beam diameter (Note 2)		1.75 X3.5mm				
Light receiving part		CMOS image sensor				
Resolution		20 μm				
Analog output	Voltage	Output range: 0~10.5V (normal), 11V (warning) Output impedance:100Ω				
	current	Output range: 3.2~20.8mA (normal), 21.6mA (warning) Load impedance: 300Ω or less				
Protective structure		IP67 (except connector part)				
Ambient temperature		-10~+45°C (be careful not to condense or freeze) Storage: -20~+60°C				
Weight	High functional type	About 70g (excluding cable), about 110g (including cable), about 160g (packaging)				

## HIGH PRECISION SERIES

- Accuracy: 1mm
- Frequency: 10hz, 20hz, 30hz
- Analog output type: current output/voltage output
- Digital output: 1... 2 x reverse pulse: PNP/NPN
- Light source: infrared laser
- Laser Class: Level 1 safety laser



### I. KELR-TE03, TE05, TE10, T20, TE40 High-precision laser ranging sensor

Performance	TE03	TE05	TE10	TE20	TE40
Measure center distance	30mm	50mm	100mm	200mm	400mm
Measuring range	±5mm	±15mm	±35mm	±80mm	±200mm
Beam diameter	About φ50μm	About φ70μm	About φ120μm	About φ300μm	About φ500μm

# LASER RANGING SENSOR

Light source	Red semiconductor laser Class 2 (JIS/IEC/GB), Class II (FDA) (Note 2)	
Analog output	Analog output·Output range: 0V ~ 5V (normal); 5.2V (alarm) Output impedance: 100Ω	
	Output range: 4mA ~ 20mA (normal); 0mA (alarm)	
Control output	〈NPN output type〉 NPN open collector transistor Maximum inflow current: 50mA Applied voltage: 30VDC or less (between control output and 0V) Residual voltage: 1.5V or less (when the current flowing in is 50mA) Leakage current: 0.1mA or less	〈PNP output type〉 PNP open collector transistor Maximum source current: 50mA Applied voltage: 30V DC or less (between control out put and +V) Residual voltage: 1.5V or less (when the current flowing in is 50mA) Leakage current: 0.1mA or less

## II. KDATC-II Laser Sensors for Liquid Aluminum Level Measurement

Measuring range	0.1 ~ 30m
Measurement accuracy	1mm
Resolution	0.1mm
Operating temperature	-10℃ ~ 50℃ (Air cooling + air purging)
Sensor size	220×124×60mm (L×W×H)
Weight	1.9Kg (Includes mounting bracket)
Data interface	RS232 (RS422 needs to be customized) ; Baud rate 9600, ASCII format 8n1
Analog output	Programmable measurement range, 4-20mA; load impedance ≤500Ω

## III. High-precision laser displacement sensor

Product number	High functional type	MG03-L	MG05-L	MG08-L	MG12-L	MG25-L
Measurement method		Diffuse reflection				
Determine center distance		30mm	50mm	85mm	120mm	250mm
Measuring range		±4mm	±10mm	±20mm	±60mm	±150mm

## IV. Q30, Q50 Laser Photoelectric Sensor (Reflective Plate/Through Beam), Q50 Laser Photoelectric Sensor (Diffuse Reflective), Q50 Laser Photoelectric Sensor (Through beam)

Thread Size	Q30		Q50 (Reflective Plate, Diffuse Reflective, Through beam)		
Detection distance	1.5m	70m/100m	Reflector plate: Sn=10m	Diffuse Reflective: Sn=500mm	Reflecting plate: Sn=100m
Detecting spot size	< 4mm				
Operating ambient temperature	-5℃—+50℃				

# LASER RANGING SENSOR

## V. M4, M5, M6, M8, M12, Q31/M18, Laser Photoelectric Sensor Through Beam Type

Size	M4*20mm	M5*24mm	M6*0.75*24mm	M8*45mm	M12*50mm	M18*50mm
Sensing Distance SN[m]	20m	20m	20m	20m	50m	70m
Operating Temperature	0-55°C					

## VI. M3, M5, M6, M8, M12/Q31, M18 Laser photoelectric sensor diffuse type

Size	M4*20mm	M5*24mm	M6*0.75*24mm	M8*45mm	M12*50mm	M18*50mm
Sensing Distance SN[m]	20m	20m	20m	20m	50m	70m
Operating Temperature	0-55°C					

## VII. M4, M5, M6, M8, Ultra Small Laser Photoelectric Sensor Series (Reflective Plate, Through beam) & M12, M18 Laser Photoelectric Sensor Series (Reflective Plate, Through beam)

Threa d Size	M4X0.5 (Reflec tive Plate)	M4X0.5 (Throug h beam)	M5X0.5			M6X0.5		M6X0.75 (Throug h beam)	M8X1		M12X1 (Throug h Beam)	M18X1.5	
			Diffuse Reflectiv e	Reflecti ve Plate	Throug h beam	Reflect ive Plate	Diffuse Reflecti ve		Through Beam	Reflecti ve Plate		Reflectiv e Plate	Throug h Beam
Detect ion dis tance	2m	20m/50 m	Diffuse Reflectiv e: Sn=20 0mm	2m	20m/5 0m	2m	Diffuse Reflecti ve: Sn=2 50mm	20m/50 m	30m/60 m	1.5m	50m/80 m	1.5m	Reflectin g plate : Sn=70 m/100m
Detect ing sp ot size	0.8mm	Custom izable 0 .5mm	1mm		custo misabl e 0.5m m	1.2mm		Customi zable 0.5 mm	2mm	< 1mm	< 4mm	< 4mm	< 4mm
Operat ing am bient t emper ature	-5°C—+50°C												

# LASER RANGING SENSOR

## HIGH FREQUENCY

- Accuracy: 1mm
- Frequency: 100hz, 200hz, 300hz
- Analog output type: current output/voltage output
- Digital output: 1... 2 x reverse pulse: PNP/NPN
- Communication port: RS485
- Light source: infrared laser
- Laser Class: Level 1 safety laser



(1m, 5m, 10m, 20m, 30m, 50m, 80m, 100m, 150m, 200m range)

Supply voltage UV	DC 10V...30V
Measuring range	0-5M ,0-10M,0-15M ,0-20M,0-30M ,50M,80M,100M,150M,200M
Measuring objects	Natural objects
Resolution	1mm
Accuracy	Accuracy 1.5 mm + d 0.5‰
Frequency	5Hz, 10Hz, 20Hz, 30Hz
Output time	≥ 4 ms 6)
Light source	red laser
Laser level	1 (IEC 60825-1:2014, EN 60825-1:2014) 7)
Typical photoelectric size distance ()	15 mm x 15 mm (10 m)

Digital output		
	Quantity	1 1) 2) 3)
	Type<, /SPAN>	PNP, NPN optional
	Suitable for large output current I <sub>A</sub>	≤100 mA
Analog output		
	Quantity	1
	Type	Voltage/Current output optional
	Voltage/current	0V-10V/4mA-20mA, ≤300Ω
	Resolution	12bit
Multi-function input(MF)		1 x3) 4)
Lag		10mm...1000mm



# LASER RANGING SENSOR

## LIQUID STEEL/ALUMINUM LIQUID LEVEL DETECTION SENSOR

- It is specially used to measure the height of aluminum water/ steel liquid level under various working conditions, for display and closed-loop control of aluminum water level.
- It can maintain high measurement accuracy and reliability in harsh outdoor environment.
- Using a visible laser beam, it is easy to aim the object under test.



### I. Laser Sensor for Measuring Molten Steel Level

### II. Laser Sensors for Liquid Aluminum Level Measurement

Measuring range	0.1~30m
measurement accuracy	1mm
Operating temperature	-10°C~50°C (Air cooling + air purging)
storage temperature	-20°C~60°C
measure time	10Hz (High temperature aluminum liquid surface)
Protection level	IP65, Aluminum shell
Sensor size	220×124×60mm (L×W×H)
weight	1.9Kg (Includes mounting bracket)
Operating mode	DT (Measuring aluminum water surface)

## INTELLIGENT LASER DRIVING COLLISION AVOIDANCE SYSTEM

This device is to use laser range finder to monitor the distance between the straddle vehicles in real time. If the distance between the vehicles is less than the set safety distance, the device outputs a relay contact signal to control the operation of the vehicle (line, day), so as to effectively avoid the occurrence of collision accidents and ensure the safety of the person and equipment. The system is convenient to install and debug, and can significantly improve the safe operation ability.



# LASER RANGING SENSOR

- I. The third-generation intelligent laser driving anti-collision controller
- II. Intelligent digital display laser driving collision avoidance system
- III. Intelligent touch screen laser driving collision avoidance system
- IV. Intelligent laser driving collision avoidance system

Technical Parameters	
Detection distance	Measuring distance 30M
Detection distance error	≤5%
Alarm and output methods	Parking voice alarm and deceleration voice alarm with relay output
Alarm intensity	≥80 db
Operating Voltage	AC220V, 50HZ
Power	≤100W
Ambient temperature	-20°C-+60°C
Relative humidity	30%-95%
Dimensions	Controller 250*190*92MM

## COST-EFFECTIVE SERIES

- Diffuse reflection is measured at a distance of 10m
- The display button operation is easy to debug
- Switching output Analog output is optional
- PNP/NPN switching output can be switched

